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Three Thousand Years

THOMAS CALVERT McCLARY

THREE THOUSAND YEARS

FANTASY PRESS, INC.
READING, PENNSYLVANIA

FIRST EDITION

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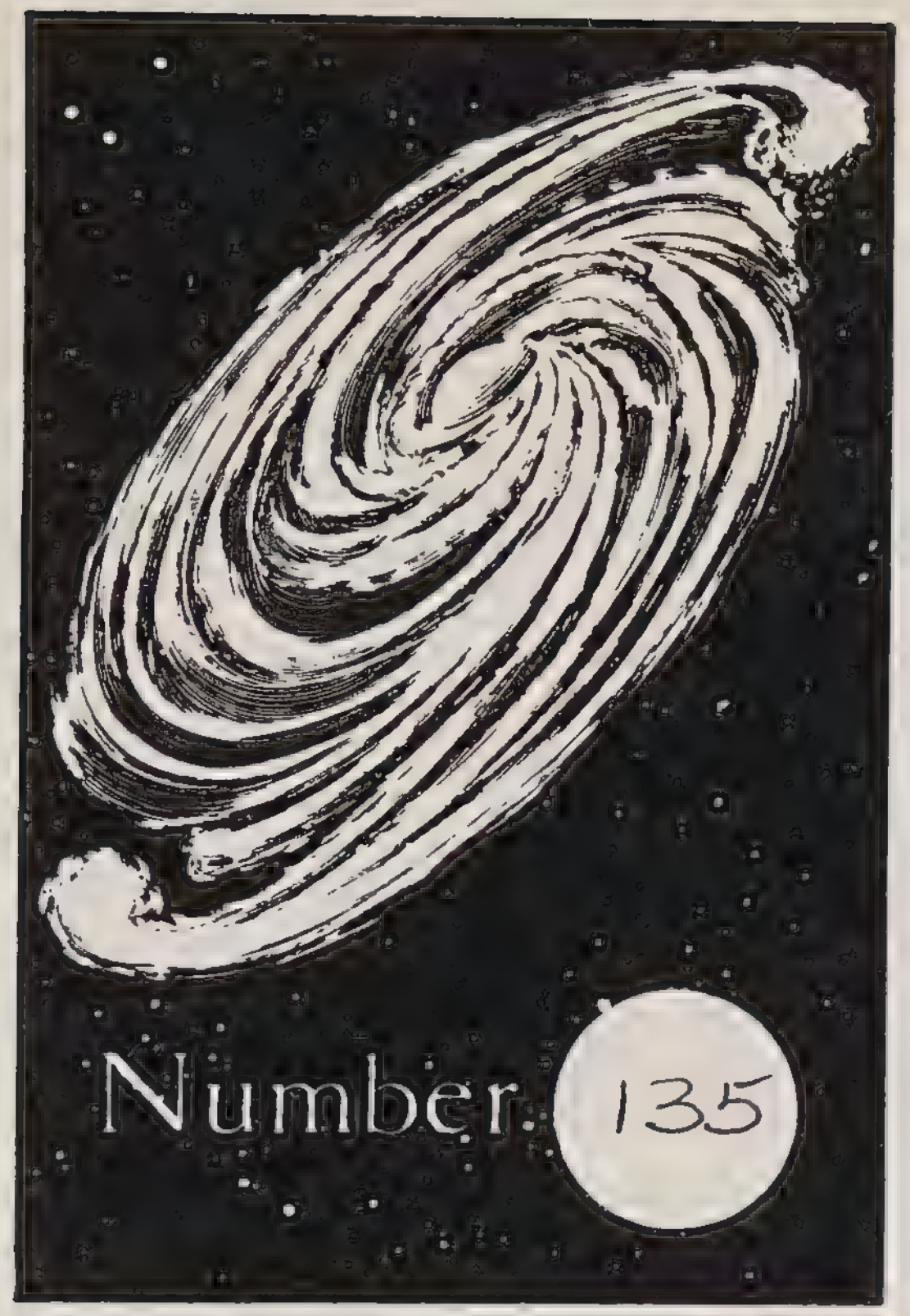

To Carl E. Jensen
H E McClary

This First Edition is limited to 3000 copies
of which 300 are numbered and autographed.

"Time's the king of men,
For he's their parent, and he is their grave,
And gives them what he will, not what they crave."

—*Shakespeare: Pericles*

Three Thousand Years

Prologue

How can I tell this vast story of so many different facets? I can do it because I am an instrument of graphs and charts, of multiple symbols and calculations and deductions, that can be interpreted as words or pictures, or even music, if you are so minded.

Some, who know of my existence, call me Simon Gamble's Robot Brain. But they are wrong, for I do not think, I do not feel, any more than a photographic plate. I simply record incident and time and place in whatever terms or factors are strongest. I am a kind of glorified calculator, such as the Pari-Mutuel machine that gives you your odds at race tracks. The odds are accurate upon any given horse, but the machine does not actually know or care what the odds are, nor what a horse is, nor the owner, nor the weather, nor the jockey, nor the trainer, nor the emotions of the bettors.

Simon Gamble invented and perfected me to record history's greatest revolution—Mankind's coming of scientific age. And his own intellectual and moral victory over the traditional human errors and avarice and lust for power of the mighty—particularly Vincent Drega.

THREE THOUSAND YEARS

From different standpoints, both men once thought knowledge of the truth a highly desirable objective. Gamble thought the truth would make for purity of concept and understanding; that in a general way it would bring the language of science, and the cold analysis of science, to the whole world. Drega thought that a more private knowledge of truth would enhance his personal power and achievements—that he could almost see men's secret minds working under the masks of deception they raise against the rest of mankind.

Now both men feel that the naked truth, too much truth, can be disturbing, destructive, and dangerous.

Both men, in fact, have many parallel ways of thinking toward different goals, and toward many of the same goals, but from different viewpoints. Had they recognized that long ago, and the simple fact that the world has two opposite poles, both men might have come nearer to achieving their ultimate ambitions and avoiding great catastrophe.

It is not within my purely recording powers to judge or estimate which man was wrong, or just how far men should be blamed for the ambitions that supply much of the force of their accomplishments. I can only tell what men have said or thought or done during the time of my recording.

You, who have not a millionth fraction of my recorded knowledge, but who can feel and think, will decide the guilt or error or compensating good that will rest upon the cataclysm of those terrible Three Thousand Years. . . .

I

YOU HAVE TO VISION THE TWO MEN AS THEY WERE then, that day of the argument that grew out of their private atomic conference, and the policies they would pursue in meeting various world problems.

More strictly speaking, these were the policies of companies, corporations, cartels, even of governments. But allowing for limitations, these two made the decisions. Both were physically virile, intellectually dynamic, and in their mid-forties. Each was in a position, in great part, to checkmate the other.

Vincent Drega was shortish, muscular, a human juggernaut who had built an international financial empire not upon cunning or diplomacy, but upon blunt power. His human appetites were lusty, his emotions headstrong. He had started as a construction boss, and it would always be about him. He was roughshod, realistic, tough fibered. He liked to say that he had never seen a blueprint that could be followed accurately—that problems would always arise that had to be settled with the means and tools at hand right on the job.

THREE THOUSAND YEARS

Simon Gamble was tall, spare, iron-gray of hair, with black eyes that held a glint of ice. He was a man dominated by his intellect, who liked to develop his myriad ideas through the cold, analytical detachment of pure science. Humanity, to him, was a simple scientific equation. He had no tolerance with human error and folly. Five hundred years ahead of his time, he was a kind of Luther Burbank of physics and electronics. And he was Drega's chief scientist.

The conference had begun quietly enough in a discussion of the general dislocations and problems that the atomic age was causing. The dissension started when Drega took the viewpoint that atomic energy was, or should be, a mere tool of finance and commerce. Simon Gamble contended it was at once root and branch of all modern and future economies.

There was a basic dissension here that had been building over the years. More and more as Gamble's mastery of science produced miracles of progress, more and more had Drega suppressed the fruits of Gamble's brilliance as premature. There was the internal combustion engine the scientist had developed that would produce ten times any present horsepower at less than one-tenth the present fuel costs. Drega contended that the engine would wreck a dozen industries and the model lay buried in his vaults.

It was Drega's answer to a great many secret and buried formulæ. Admittedly, they were great steps of scientific progress. But one would wipe out the Bessemer steel industry overnight. Another would crash the wool, cotton and pulpwood industries. He had heavy investments in all, which perhaps, as Gamble claimed, influenced his viewpoint.

Yet economic considerations were bagatelles compared with the scope of Gamble's thoughts on atomic energy, which ran the gamut from such matters as childbirth fatalities to an agricultural and industrial complex that could be operated by a few score men. He could feed and clothe and house the world and make every man a king with the equivalent of a hundred servants. He could make the feeble-minded brilliant, he could double or triple or quadruple the life span of Man. He saw atomics as the end of the age-long search for a universal catalyst that could make everything on this earth good and wipe out all evils and poverties of mankind.

. . . that was providing Drega would let him set up a laboratory such as no project ever dreamed of had ever boasted, and would then give him an unrestricted hand. What mattered dislocations of traditional economics, of government boundaries, of political systems? There would no longer be any need or use for such. The world would flow with milk and honey. Atomic energy would open the door to the promised land.

Drega was not the calloused or merciless man the world commonly held him. He was simply hard-headed. He took life and men as they came and made the most of them. He made no attempt to crusade, for he had never found any lasting good that came of crusades. To his way of thought crusading monopolized and disconcerted a man until he stood in peril of losing what he already had.

An utter pragmatist, he did believe in some outside power that controlled man's surges of emotions and ways of life, both good and bad, as the moon controls the tides. He did not believe a new world could be designed and fash-

ioned on a blueprint. A new world, a new way of life, would merely bring new problems. Modern man might live longer and better than his grandfather but progress had done nothing to reduce his worries. Drega saw no indications that peace was a natural corollary of plenty. Things had to evolve by natural laws and in due time, and by process of sweat, error and combat.

At the same time he did not underrate Gamble's brilliance. Gamble was no crackpot when it came to production. Given time and money, in Drega's opinion, Gamble could work out any scientific problem. But also, in Drega's opinion, his chief scientist was half-witted on the score of economics. He disregarded or held in contempt the most vital motivations of mankind. He regarded human incentives with the cold dispassion of pure science.

In Gamble's world was no room for ordinary human fallacies. He scoffed at inefficiency as inexcusable stupidity, with compromise as muddleheadedness. Why compromise when there was only one true mathematical answer to a problem? To Gamble life was black or white . . . the simple true equation—or confusion.

He was not compromising now, but his own actions were proving him more human than he knew. The quarrel had gone beyond the abstractions involved, had turned bitter with the egos of two great men whose most cherished views had been challenged. Cold theory faced recognition of human incompetence across that table. But driving the two viewpoints were the personal egos of the two men.

While they fought, a world of pride and prejudice and economic systems, evolved out of ten thousand years of trial and error, hung in the balance. Civilization teetered upon

the outcome of two battling wills.

"Five hundred million people sick and malnourished," the scientist snapped, "while we have a tool to cure almost any disease known! I can grow pigs as large as elephants, wheat the size of corn cobs, store the power of a hurricane in a bottle! We do none of them! What kind of sense is that, just to support an obsolete way of life?"

"Your processes would require infinite cheap power and thousands of tons of gold wire, among other things," Drega growled.

Gamble tossed his head with scorn. "I can produce power and gold cheaper than natural gas and iron ore!" he snorted. "What does cost matter if you destroy money?"

Drega went white around the lips. "Destroy the natural balances, the traditional incentives, the value of profit and gold, and you destroy the economic systems of the world! This is a world of trade and commerce, Gamble, and we aren't ready for a science civilization."

"Economic systems!" Gamble sneered. "The cancers of civilization! Gold was a resource of savages who lived on worms and bugs. Science—intelligence—are the resources of tomorrow."

Drega crashed the table with a muscular, flat-backed hand. "The traditions and economic systems under which a civilization lives are the greatest resources that it has! Strip the world of these and you leave the world with raw wealth and no factories, or with factories and no men to run them. The give-and-take of economic and political battle is the way to work things out. In time progress and tradition adjust by compromise."

Gamble leaped to his feet shaking with fury. His voice

was a hoarse whisper. "You mean men like you adjust and compromise! Invariably with war, Drega! Fifty million people can't be decently fed. But they can be annihilated at a cost that would keep them in peace and decency."

"In all building and progress there is waste and battle," Drega snapped. "Waste, even death, is better than the disintegration of planned slavery."

Gamble controlled his shaking with difficulty. His face was bloodless, his lips blue. "All right, Drega, take your waste and war and wreckage. Take your cracking systems and rotten governments and bloodshed and stupidity. But I will give the world the food it needs, the peace it wants. If it shatters every economic system into atoms—good! Science will supply a new system that will work!"

"For scientists!" Drega commented acidly.

He watched with misgivings as Gamble stalked from the room. There was no doubt in his mind that the electronocist could do what he claimed, whatever struck his brilliant brain. Drega gave him credit for accomplishment of anything he sought to do—except to see Mankind in terms of mortal men.

He thought of gold produced cheaper than iron, of giant wheat grown in chemical solutions. Sweat broke out on his brow. Gold was not vital as money, was no longer actually an element of great value. But gold had come to be endowed with value by centuries of man's blood and sweat and worship and tradition. Gold was something people believed in. It was a symbol, yet a symbol as necessary to trade and government as plus or minus to mathematics. Nor was wheat a mere food. It was a vital element of commerce, barter and exchange. It had a value people were used to consider-

ing and using. Destroy the value and you destroyed the economic basis of human existence.

With sincere fervor Gamble called a meeting of scientists and issued a statement of his intentions. He was bitter at the bungling of financiers and politicians. Millions starved —more millions were living lives of economic and intellectual sterility merely to go on living.

Well, he could feed them—feed them cheaply and plentifully and give them time and freedom to work out richer lives of greater benefit to both themselves and science. Let the obsolescent economic systems crash. What of that? They were always crashing into war or inflation or depression anyway.

His dream lifted him to Olympian heights. Talk was one thing, production something else. That had been the claim of the traditionalists for centuries. But this time the talkers had the know how and tools and learning for production. For once the dreamers held the production secret, and the so-called practical men were doing the dreaming.

But the world could not reach Gamble's intellectual heights nor grasp his breast-burning vision. The press was forced to give him attention, but added grave misgivings. The wheat market tumbled; the meat market followed. Housewives were happy for a week and then the avalanche of the economic crash caught them. A big steel company shut down to wait things out. Banks began to close.

In three weeks seventy million workers were laid off around the world. Factories idle and farmers left their plows in unfinished furrows. Politicians and financiers were bewildered. Suddenly money seemed to have no value, but

paradoxically, from a drop to all-time lows, prices rocketed with the spread of unemployment.

Farmers marched on their capitols. Gamble's house was stoned by frenzied mobs. He was called crazy, insane, a maniac, a menace. An experimental pig, the size of an elephant, was tortured and ripped to shreds in the crowd's violence. Even if his ideas were workable, look at the ruin they had already brought about!

Word came of his imminent arrest. Besieged and damned by the very people he had sought to help, Gamble fled into bitter exile. Never after that day did he make public an invention nor appear before the world. But he worked at a chastisement that would show the world the error of human folly and the power of science when science willed it.

He never realized that his own actions were utterly human—that his reactions were the sort he would have expected of Vincent Drega.

II

ACE REPORTER LUCKY FLAGHERTY SAT IN HIS PUBlisher's office flicking his ashes on the deep piled rug, the gesture of his general rebellion against the pomposity and power of such men as Lucius Prescott.

"Chief," he said, "this series would boost our circulation to the skies. We've had nothing but troubles for years. People are softened up to expect the worst of anything. Now the pyramidologists, who don't predict often, are predicting world catastrophe—but they won't pin the prediction down. We can pin it for them."

"The policy of this paper is never to predict," the publisher intoned sanctimoniously. "We give the news and quote only what qualified groups and persons say."

"That's just the point," Lucky told him. "We can dig up the qualified groups and experts to predict. We can offer quotations that will give readers more insomnia than a TV horror mystery!"

Lucius Prescott tilted back to look at the ceiling and made steeples of his carefully manicured fingers. "Rhhh-*ummmmph!*" he considered. "We're carrying news of war,

revolution, famine, unemployment, a dust storm and two floods today. Conceivably we might be doing a public service by taking the public's mind off its real troubles. I'll grant you there's nothing like a thriller to make people forget their ills."

"And to boost circulation," Lucky pointed out.

Prescott scowled and wondered why he put up with this rebel. By rights Lucky should have been a barker for a circus sideshow. He had ideas and he brought in stories, though.

"This series," Prescott considered, committing himself to an okay, "is loaded with dynamite. Get names to cover it—big names. And let me know if any of them say anything that is really important."

Lucky grinned and departed. He was back by mid-afternoon, keyed as a terrier on the scent of his series, but his flippant irony was oddly subdued. "I managed," he said, "to get interviews with both Simon Gamble and Vincent Drega."

Prescott's face showed interest. "Don't tell me those two are speaking again!"

Lucky shook his head negatively. "I caught Gamble first, at that super-science fortress of his up the Hudson. There are enough gadgets there to make ten movies of a new world. Except for the labs the whole place is run by one electrician and he is merely a maintenance man. Lunch was ordered, prepared, cooked, served, the table cleared, dishes washed, everything put away, without a person touching it."

Prescott looked dubious. "I suppose he just phoned some robot to fix up chicken à la king?"

"Not much different," the reporter said. "He put a

roller in an automatic contraption. Like a roll in an old-fashioned player piano. And the floor I stepped onto when I went through the front door carried me into the room where he met me."

He thought briefly about the ease of life at Gamble's castle but there wasn't anything easy about those vast atomic labs nor the way the scientists worked. One man had not been to bed for a year and four months, Gamble had told him. He worked in a metallic suit, hooked up electronically, that drew off the fatigue poisons as they formed and kept his vitality at top efficiency peak.

"Well," Lucky erupted suddenly, remembering himself, "I went in smirking. I told Gamble that the pyramidologists were predicting world catastrophe at precisely three-thirty E.S.T. on March fifteenth. I thought he'd snort with scientific scorn and might even throw me out of the place."

"He should have," Prescott stated.

"Well, he didn't. That's when he ordered lunch, in fact. Then he sat me down while he did the interviewing. He got the name and address of the pyramidology groups and every scrap of fact and hearsay that's come over the news tickers. I had to call the morgue here and let him listen in.

"When he got all the data there was to get he sat there, puzzling it out, and asked, 'How the devil could they have figured out a time prediction in the days of the pyramids? How many lost secrets of science did they have?' He took it seriously!"

Prescott leaned forward on his desk. His face was visibly excited and impressed, but then he covered his feelings with a newspaper publisher's cynicism and grunted, "The pyramid builders have always impressed even the modern super-

scientists."

"Wait till you hear this," Lucky said. "I asked what might alter the prediction of catastrophe and he said, 'Rain —a heavy rain—either here or in Estheenland.' That's where we're expecting trouble to break wide open, isn't it?"

Prescott nodded and Lucky paused to light a cigarette nervously.

"Then I got in to see Drega," he continued. "And when I told Drega it broke his hard shell just as it had Gamble's. He asked most of the same questions but slanted them politically. And when I asked him what might alter the predictions, he said, 'Rain, heavy rains in Estheenland!' Then he grew a little ironic and added, 'Or maybe Gamble claims he can bring rain.' "

"Amazing!" the publisher murmered. "Handle the story your way and tell our weatherman to play it up."

He watched Lucky out, tapped his desk with a cigar while his face settled into an expression tinged with something predatory. He picked up his phone and called his broker. If war broke out it would undoubtedly start in Estheenland and now that he had heard Drega's and Gamble's reactions to what he had considered a pure stunt, he recalled that elections in Estheenland would be on March fifteenth. Election riots might well precipitate a war. And one of the few antidotes for riots was rain—torrential rain.

But why rains here in New York should affect the world pattern he could not fathom. There were times like these when he wished he had treated Simon Gamble a little better editorially. No doubt the man was a genius. It was just too bad that the world was humdrum human, Prescott thought, as he gave his broker orders on some war stocks. Then he

dictated a violent editorial denunciation of war.

Finished, he phoned Drega. He had trouble getting through to him. Drega was handling half a dozen overseas phone calls. Drega was guarded, cautious of statement, but admitted that in his opinion, if there were election riots in Estheenland, they might trigger the opening guns of war. Furthermore, that heavy rains there on election day would keep people off the streets and violence might be avoided for the moment.

Prescott said, "You and Gamble have the same opinion on that. But why would rains here in New York affect matters?"

"What?" Drega barked, and Prescott could hear him breathing hard at the other end of the wire. Shortly, with controlled voice, he added, "So Gamble included that? Flagherty didn't mention that item."

"Do you think Gamble's foolish enough to try and take world peace into his own hands with some cockeyed threat or demonstration that he might pull here?" Prescott asked.

"If he should it will not be just a cockeyed threat," Drega stated. "And it won't be foolish for him this time. That fortress of his is utterly impregnable to anything short of a hydrogen bomb. He could stay cooped up safely there for fifty years."

"But the rain?" the publisher persisted.

"Local rain," Drega said, "might effect some electronic experiment of his but I can't see how it would ward off catastrophe. From his standpoint, if it prevented some experiment, he'd consider rain or any other delay the worst catastrophe that could happen. No, Lucius, that's the big question that has me stumped."

In the city room Lucky batted out his story at the typewriter next to the irrepressible Lulu Belle. "Great guy, that Gamble!" he enthused while he wrote. "What a kitchen he'd fix up for you. And gold for a buck or two a pound. Sweetheart, you imagine what that would mean to us—a world without money. No debts, no salary, no job to worry about!"

"I can't imagine how you'd buy me a wedding ring or a trip to Florida every now and then," Lulu Belle said pointedly, looking up from her Lovelorn column. "Besides, you'd be impossible to live with if you didn't have a job that let you poke around into everybody else's business."

"Oh, I'd be off to Mars if men like Gamble ran things," he told her.

"It would just spoil you," she sniffed. "The girls up there have eight legs. They do, too! I saw it in your own story!"

He turned to her seriously. "You know, there's no logical reason Gamble's ideas wouldn't work if the world gave him a chance!"

"But who else would work?" she demanded. "He'd give you every thing for nothing. You'd have things too easy to keep you out of trouble."

The Ides of March was a great day for the calamity howlers. Lurid stories of what might happen had attained an exciting crescendo. For the most part, the public was taking things with that make-believe horror that makes a horror movie or detective story so popular. But here and there the gullible, the depressed, the guilty, the mentally disturbed were reacting violently to the impact. The police

stations and the psychiatric wards would be glad when this day was over.

At three-twenty Lucky Flagherty drifted over to his editor's desk to grab a first copy of the edition when it arrived. He stood beyond the desk, looking out the window. Outside, the sun shone with a bright golden light. Gamble had said it would almost certainly be good weather.

Traffic streamed as usual along the avenue below him. Heavy traffic, waterfront traffic. Opposite his vantage point was a row of covered docks reaching out into the river. He watched a sailor on the top of a mast, painting, and he considered the man's dexterity while moving around his precarious perch.

The boy hustled in the last edition and he grabbed one and read the headline: WORLD'S END—OR RAIN. He grinned.

He read the condensed reports of the Estheenland election probabilities. The local correspondent didn't seem too excited. Riots were expected but the police said they were prepared and had things well in hand. It crossed his mind that, if war did come, this one would be a real lulu. There were a dozen new secret weapons but there was one bomb in particular that gripped his imagination—a giant cockroach bomb was what it amounted too except it would shatter the nervous system of every human being in a four-hundred square-mile radius.

"Blown to hell by a bug!" he thought. "A fine end for civilization!"

But at the moment he was more interested in his final story, predicting every form of catastrophe from world explosion to the conquest of civilization by giant snails. His

editor hung up the phone with a bang and gave him the old fish-eye.

"Did the world's greatest news-sleuth have any trouble selling this cockeyed scare series to the boss?" he inquired.

Lucky polished his nails on one lapel. "Not with my persuasive personality," he admitted modestly.

The editor leaned back with sudden rare good humor. "Seems that the governor of the state has that same charming glamour," he allowed. "He has just persuaded the boss that he may go to the clink for inciting mob violence. They've had to put out the air-raid ambulance call to take care of the nuts going whacky. There's been a week-long crime wave that has the commissioner on the spot. Fourteen cult racketeers have been picked up getting rich with your stories and promising suckers a special train through the pearly gates."

"I begin to suspect the axe," Lucky said.

"Oh don't get depressed," the editor advised pleasantly. "You might not get fired. If the world does end in one minute eternity will remember you as the greatest of scoop journalists!"

"The circulation of the paper skyrockets and I get the gate for gross genius!" Lucky yelped.

"*Genius!*" the editor roared. "Listen, Doomsday, that was the phoniest series of . . ."

He paused to cough. His throat was tight and stuffy and queerly dry.

"Flagherty, you're fi—" He stopped short, batting his eyes as a strange sensation of unreality filled him.

It was difficult to open his eyes the last time. They felt leaden. His thinking was confused. But he glared savagely

out of habit, determined to read the riot act if it killed him!

Then he gasped and thought wildly, "Jeepers, creepers, he isn't fired!"

For a motionless, naked, black-bodied Lucky Flagherty stood before him. He was alive, but he was made of mud!

III

AS THE CLOCK CRAWLED TOWARD THREE-THIRTY ON the afternoon of March fifteenth, tension gripped the city, but it was outweighed by curiosity and humor. Most of the world expected to have its moment of laughs, then maybe relief, then to continue its normal round of duties. Most serious of any predictions had been a threat of time-bombs from some crank.

Among the knowing, however, the gravest fear was of a blow-up in Estheenland. Few of the general public gave that a second thought and many of the people in the streets could not have told where the country was located. By and large, men, women and children were continuing their various pursuits.

Up the Hudson Simon Gamble had assembled his staff after inspecting the various laboratories with extreme care, particularly for sundry chemicals that vibration or intermixture might cause to explode.

"Just by way of precaution," he told them. He looked at the big nuclear fission and fusion apparatus. "A shame we can't completely insulate these big rooms or sink the ap-

paratus in oil," he thought aloud. "One of these days we'll begin processing any type of insulation into any material at the time of milling or finishing. It's really ridiculous that the Earth, with no brain to think with, has insulated itself a million times better than the men who live on it!"

The thought moved beyond technicalities into human relations and gave him a momentary scowl. Somewhere a shortwave set was crackling a private report from Estheenland. The report promised serious trouble. The riots were already out of hand.

This was far from catastrophe, but catastrophe could grow out of it. The next world war would be something too terrible and savage even to think about. Particularly for scientists, who knew war's potential, who had slaved and created the potential for the antithesis of war and suffering.

Then he noted the time and lead his group into the main conference room, where stood a blackboard covered with equations and calculations. It was really a pretty simple problem, except that had it rained today in the skyscrapered and tunnelled city of New York, an X-factor of effectiveness might have been introduced and acted as a chain reactor on the whole picture.

It hadn't rained, so there was an end to worry. Gamble poured a round of wine as the clock moved toward three-thirty, and raised his glass to the assembled group. "Well, here's to science's mild chastisement," he toasted. There were chuckles and smiles somewhat forced and strained, and the group drank.

Five minutes before the half hour they were all seated at the long table. He pressed a button and watched the spit of colored trouble lights fill a panel board before him. One

flickered white twice, a few flickered green, then the panel was solid red.

Gamble smiled and pressed a second button. "To tomorrow!" he murmured.

At Drega Towers in New York, the financier had called a policy meeting for three o'clock. It was like him that for all the gravity of this meeting he could still think of lesser matters. He had dressed five of his board of directors in suits of a new material that his laboratories had perfected.

"Practically indestructible," he told them. "Impervious to weather and all types of fungus and rot. Left hanging unused, I believe these suits would last quite literally forever."

Such material would not be sold to the public, of course. It would ruin the replacement business and whole chains of industries and merchandising establishments. But as a test and a boast it pleased him to have a few suits made up. He had once done the same thing in stockings with a supernylon and they were still wearable twenty years later.

He took a last-minute call from overseas and, when he hung up, nodded at his group. "Riots have spread into the hill country. It will be revolution by tomorrow, war with Danta by the day after. That leaves no alternative save a growing conflict. But I am happy to report that the governments most likely to endure are friendly and under substantial obligation to us."

He was neither happy nor depressed at the news of war. It was simply another play in the eternal chess game of international commerce and diplomacy. His job was neither to foment wars nor to stop them—but to carry his companies

through whatever happened to their best advantage and to the best of his ability.

He felt a wave of numbing brain fog, but it was momentary. In the next instant his dynamic energy surged up from the very point where it had broken. In his mind's eye he was picturing their holdings and connections in Estheenland.

What might have astonished him was that Estheenland no longer existed. By then it formed the floor of a clear blue sea.

Around the corner, in a different section of the building, Tim Lanahan led a gang of trouble-shooters down into the basement. "Hell, rum or high water," he chuckled at them, "if the catastrophe wants us it will have to wait!"

He ducked through a doorway and then he felt dizzy. Then he was struggling through æons of unreality to get his feet back on earth. His only clear thought came out of instinct. He had been dead wrong in what he told the boys on the way in. Catastrophe had not waited.

At a famed university a renowned philosopher snorted his ire at a friend's harping on what might happen at any moment. "Prophesies," he declared, "are just another form of superstition!"—and he led the way into another room.

He stopped dead, not sure that what he saw was real and yet knowing that it was. The other room had become an open field. A brook ran at his feet.

In a small neighborhood saloon Mr. Herb Oliver, inebriate, was absorbing his day's second drink. He was not drunk but feeling pleasantly aglow and not ashamed of it.

For thirty years he had been drinking much too much and had never misbehaved nor suffered even the most minor delusions.

"Michael," he toasted the barkeep, "I have seen strange things in these quiet hills during my life. Things that the gullible and ignorant called curses, witchery and such. Yet strange as some of those things were there was nothing that could not be explained. Had I not known that, had I believed the obvious as many hereabouts are believing these predictions, I would have been forced to give up the friendship of the bottle long ago and become a very unhappy man indeed."

"You've never gone on the wagon even once?" the barkeep asked with respect.

"No *sir!*" Mr. Oliver stated emphatically. "And nothing will ever make me commit that insult to man's finest art!"

He brought the glass to his lips but he did not drink. Michael had suddenly developed an immense red beard, completely covering his chest. His fingernails were ten inches long at least. There were other things wrong but Mr. Oliver blocked any further consideration of such absurdities from his mind.

"No!" he chided some mischievous spirit of the bottle. "You will not do this to me!"

He turned his attention toward the window to take it from this obviously imaginative scene. He saw a gaunt cow grazing in a wilderness where a city had been.

At this point Mr. Oliver collapsed, weakly swearing the pledge for all time.

* * * * *

Overseas, in a country that had manipulated the riots in Estheenland, a dictator had mobilized a single army of two million men on a great plateau. Now he stood on a high table rock, watching this greatest martial panoply of history. He thought of the predictions and laughed to his aide. "*There* is the world's catastrophe but they picked the wrong date! Nothing can stop my army. It will sweep the Himalayas before it."

Then he stared with dismay. His army had been marching in one solid, square maneuver. Now the broad cloud of its dust had vanished. So had his army—almost, at least. Only the heads of his soldiers were left, sitting like lines of fallen apples upon the very plains.

All over the world such incidents were man's first bewildered knowledge that something cataclysmic had happened at precisely three-thirty p.m., U.S.A., E.S.T. But what or how, or if they were sane or crazy, they had no way of knowing.

Back in the *Journal* office Lucky Flagherty stared unbelievingly at his city editor, crumpled amidst a pile of dirt upon the floor. "And that is the so-and-so who was going to tell me off!" he thought.

His mind began to function, not just from where his thoughts had been but from this instant forward. The enormity of whatever had happened gripped him. *Something* had happened, that was clear—something terrible. Something almost, maybe actually, beyond the power of imagination to conceive.

"Maybe," he thought with a sense of panic, "I'm just a disintegrated idea floating like a speck of dust in space!"

He had a sudden worry about Lulu Belle. If he were just a disembodied idea what had happened to her?

But Lulu Belle was quite safe. She was across the room, having her own first reactions. And they were much more to the point.

She was telling herself, "Just wait until I get my hands on that Lucky Flagherty! I'll bet this is one of his great circulation stunts that got all fouled up as usual!"

Then she noticed her nails and murmured with real heartfelt horror, *"Oh, dear!"* Her nails were easily nine inches long. And filthy.

Out of long habit, her hands flew to touch her newly cut hair. Her poodle bob was no more. Hair was tumbling all around her. Why, it must be half again as long as she was tall.

If she could have reached Lucky just at that instant of discovery she would gladly have throttled him and expected a medal for it. This was too much like the time he had tried to cloud up a second-rate murder to keep the story running and as a result, she had all but wound up in prison on the basis of his phony circumstantial evidence! Or the time he set out to expose a hypnotist and talked her into helping and had her running around, yapping and yelping like a dog.

He was probably up to some side money in this, creating some screwball publicity stunt for Gamble. Yes, everything pointed to that now. All the buildup and news and feature angles—particularly Gamble's remarks about rain.

She'd give Gamble credit. If he set out to cover a city with some loco gas or fumes to give people a scare, he had the mastery of science to do it. But she would have laid twenty to one it was Lucky who had cooked up the idea and

sold him on it!

It made perfectly good sense in her mind. She had never had delirium tremens but she once had had tropical fever and the hallucinations had been no crazier. The thing to do was just sit still, telling herself what it was—and after a time the effects would wear off.

But just wait until she was herself again! Flagherty would wish *she* were only a figment of an hallucination!

IV

NATURE WAS KINDER AND MORE CONVERSANT WITH HER child, Man, than Simon Gamble had been. Gamble had suspended all life in direct contact with earth at a given moment in such a way that the release from suspended animation and return to normal body functioning would take place in roughly the same way.

Gamble, who admitted no excuse for error, had forgotten to consider what mankind's physical condition would be, his need for gradual resuscitation. Nature, so profligate with waste, so greedy at times, so cruel at others, always so erring and inefficient—nature had prepared man æons ago with a process called shock as protection and insulation against the violence of too-sudden acceleration.

So what seemed to man's mind and, later, memory as happening immediately and with direct continuity, actually took place over a period of days and sometimes weeks. Generally speaking, there was a burst of clear thought and feeling and reaction as man came awake. Then he would doze, like a man past the zenith of a fever, to waken in hazy, confused patches that grew longer and clearer as his strength increased.

Had nature not seen to this, probably not even Gamble himself would have survived the Great Awakening.

The group nature forgot was small. For those who did not immediately die the horrible death of full circulation pouring back through withered veins and arteries stiff with disuse—those few who survived this other kind of shock still writhed and threw themselves about in agonies of pain. Their joints were locked, their muscles arid, their very bones leached of marrow. Their bodies could not withstand the beating and they literally mangled themselves to death.

Spasms and violent muscular reflex, to the small ratio so gripped, were utterly fatal. Some bodies broke open. Others shattered. Some stubbed their toes and saw their toes snap off like dried twigs. Some grabbed at a muscle to rub away the stabbing pains and stripped away flesh clear to the bone.

The great bulk of Mankind awoke for just long enough to start physical and nervous and mental processes going, then slept a day, then moved slowly, like three-toed sloths, in complete unconsciousness for two or three days.

Joints unlocked creakily, veins expanded slowly. From some last well of reserve strength the heart drew vitality into the blood and passed it out into dried, strengthless muscles. On the fourth day nervous systems began to vibrate and mend and Man's sight to return. Until the sixth day he looked about, receiving impressions little by little in measurements of a few feet and few minutes. Not sick impressions, but impressions grasped by a brain so feeble, so long unused, that it could function but very slowly. Later Man would think of all that had happened through a full six days as having happened in a term of minutes.

THREE THOUSAND YEARS

The transcription of the record is being done by men, for men, so it will be told as if it happened in the space of time men think it happened, not in the symbols of science, which has the complete and accurately documented records. What Man remembers, then, is awakening . . .

Lucky Flagherty tried to think. The effort sent violent pains through his head. It was daylight, he knew. He could see matinal shafts of light slicing oblique gold bands through the window. At least, he felt, the color should be gold. But he could see no color. He could see clearly enough within a limited distance but everything showed in various shades of gray.

This puzzled him. He had never seen gray light in his whole life. Stormy days, gray shadows in deep canyons, other grays—yes. But not *gray light*. Light was light until it grew very dim and then it simply became increasing tones of darkness. When it grew dark enough he could no longer see. But he could see perfectly and he knew it was morning light—but it was gray.

It was worth a story but he put it aside for future consideration. Just then a second thought surged out of his instinctive senses, a frightening realization to a city man. There was no noise, no voice, left in the city. Not just quiet in the way of a Sunday, but quiet in the way of a desert. If it made sense the city sounded dead.

It struck him then that maybe *he* was dead. But no, he was thinking and feeling—damn it, *how* he was feeling! And certainly the dead do not think and feel. Clearly there were others about in his own condition, for he could see them moving, hear them making sounds. Instinctively he

knew that he knew them. So he still had instincts.

His instincts told him that he was still alive, still in New York, still Lucky Flagherty. But instincts and mind were not always in tune and his mind was very close to panic. He had to put a mental watch on himself. He knew he must get himself oriented and straightened out before he could afford the luxury of worry. So all right, something had happened. Just *what* could be decided later.

His last recollection before—well, before *this,* was of getting the gate at the instant of three-thirty. He glanced at the clock to see what time it was now. There was no clock. The plaster had fallen from the wall down to the laths and brick facing. It looked like the outside of a building instead of the inside.

He sucked a deep breath to steady himself and the sudden exertion caused him to choke with pain. He felt as if, in drawing that breath, he had cracked every rib. His lungs were quivering. He could see a little better after the incident, however, which was something.

He decided to start again. It had been shortly before three-thirty and he was standing by a corner of the city editor's desk getting bawled out and . . .

There was no desk, no newspapers, no copy paper, no phones, no news-tickers. There was a pile of soggy dust reaching halfway to the armpits of the dirtiest, most heavily bearded and physically most degenerate specimen he had ever seen. The man was reaching out to him as if he had palsy. His nails looked like talons set into hands and arms so emaciated they made memories of Buchenwald and Belsen seem like pretty postcards.

The man's body was hairy and unutterably filthy. He

was quite literally *coated* with thick grime. Some of it was dropping off his arms in flakes. He probably stank but Lucky found he couldn't smell because his own nostrils were plugged with dirt and he was breathing mostly through his mouth.

In any case this refugee from a catacomb was his city editor, and he knew it. It did not surprise him that he knew but he found no ready explanation of *how* he knew. Even drunk, sore and roaring, the old coot had never looked like this.

The creature—oh, well, call him Jake for old times' sake—Jake was making weird shrill cracked sounds as he reached for him. Maybe it was the eyes that talked. It certainly was not the voice. *Something* talked anyway—maybe just Lucky's own intimacy with Jake's mind, for Lucky knew Jake was gasping, "My God, Lucky! Is that *you?*"

The question irritated Lucky's uncoordinated wits. Who else did Jake think it might be? He gave an automatic sarcastic answer.

If anything, worse sounds, even less intelligible, erupted from his own throat. The effort of trying to speak made his larynx feel as if it had been dragged with hot barbed wire. He realized suddenly that he was thirsty. Not just for a drink, not just in his throat and mouth—his whole body craved water. It wanted to dunk in a tub of cold water forever. It thirsted for something else too. It thirsted for grease.

Every new sensation or perception now set a chain of ideas shooting through his mind with the violence of atomic fission. His faculties were unable to cope with such complex shifts of divergent thought and he stood like a boy learning ABC's, telling himself, *"Keep it simple!"*

All right, Jake was number-one item. There was Jake, needing help to pull himself out of the rubbish pile—needing Lucky's help.

So far, so good. Now, how did he give him help?

That took thinking, reaching back into memory. Like reaching for an old tune, once known well—and remembering it all at once with a sense of half-shamed ridicule.

He walked over to help. At least that was his intention. But the ponderous, awkward, unbalanced progress he made certainly could not be called walking. Good Lord, was he crippled? Had the cataclysm . . .

Oh—oh! His brain issued little warning signals. "Take it easy. Keep it simple," it told him. "Worry later if you have to."

Okay. He took a measured breath. Not as deep as the one that had put him on fire but deeper than he had been taking. He managed that. His brain was somehow ahead of his body. It was recovering more rapidly.

Another deep breath and a moment of calm and where was he? Ah, he had started for Jake. In fact he had arrived close by him. He grabbed Jake's hands and braced himself. He pulled. No good but the dirt moved a little. He tried again. Still no good. He had no strength or weight.

Jake was babbling a flood of weird broken sounds but Lucky paid no heed. What did he do now? Oh yes, drag him out. There was a sense of victory in thinking that through. Something inside himself urged him to improve his thought before he tried it. Well, drag was drag. What else was there?

Why, Lucky me boy, drag him around in a circle until that dirt loosens! You're a genius, fellow! You're learning how to think! Yessir, victory was sweet. This was better

than scooping *The Times*.

Laboriously he pulled Jake around in a circle a few times. The pile of dirt rolled off, then split. It didn't even require thought now for Lucky to seize the moment to drag Jake out through the low point in the pile, to brace himself again and, with gruelling effort, get Jake to his feet. They stood there, panting and staring at each other, and then they grinned. Call it that, for that is what was intended.

Their coats of grime had flaked off during this exertion, leaving them for the most part hairy, dirty, emaciated caricatures. But caricatures of living men—Lucky's mind began to accept the fact that maybe he was really living. He had known it but in the way of knowing that, while ghosts can do no harm, it is still wise precaution to whistle when passing a graveyard after dark.

His brain was working much better now. He realized that he had been functioning mostly by instinct. Real thoughts came stiffly, physically, with an effort like that of lifting a wrenched arm. They came erratically, in spates, and then he would have to stop and feel for a word-idea in the middle of a thought-sentence.

He knew, without knowing how he knew, that he had no time sense. He could not judge whether it took him five seconds or an hour to formulate an idea. He moved his head in slow circles, as a boxer does to clear the effects of a hard blow or to limber his neck muscles. This seemed to help but his head turned slowly and the bones and cartilage sounded like a dog's rubber crackle bone. He reached his hands back to rub his neck. He had to force his muscles and joints to relinquish this position. The effort hurt him but he felt much better afterward.

As he rubbed his neck small bits of debris fell onto his shoulders. He examined one bit, half by sight, half by touch. It was very hard stuff and not like the dirt that had flaked off his body. He wondered if it could possibly be part of himself and he picked a few more lumps from beneath his ear with the uncomfortable thought that possibly he did not have full feeling, that this was part of his own body. Finally he tasted a bit—and caught the vague flavor of printers ink. Long afterward he figured out that the stuff was just dirt and dust and decomposed newsprint and that the ink had hardened it unduly.

He rubbed his neck as violently as he was able but his most abrupt motions were peculiarly weak and slow. A small multitude of chunks and flakes fell off his neck and after that he could move his head and neck much more easily. Part of his rigidity had been a collar of plain hard dirt.

He hadn't had either time nor will nor perception until then to think of himself except in bursts of half-panicky and fearful wonder. He moved his body slowly, systematically, testing to see that everything was in place. He went through a series of simple careful exercises. His motions were limited and uncertain but they gradually eased. He conquered many stabbing cramps. But for a long time his body was afire with pricking stabbing sensations, like those that beset a man when first walking after a week or two abed.

He knew he should be in agony but his sensations seemed very subdued and far away, as if they were felt in another body. This raised new fear. Perhaps his body was one place, say on earth, and his spirit or consciousness or some vital part of him elsewhere—perhaps in that place the ancients had named so well with the one word, *Limbo*.

That would make him not thoroughly dead, at least, not accounted for, yet not really alive. It was quite conceivable that Gamble had figured out a time-split or personality-body split or almost anything else that he thought would break up man's abortive massacre of his own kind.

He turned to careful inspection of himself. He was stark naked and oddly it was the first time this had struck him. There were numerous questions as to how he could have got that way but for the time being he simply accepted the fact. His nostrils were completely lined with dirt but it was fine dirt and a few hard blows cleared them. Places on his body still gave evidence that before his exertion he must have been covered with a coat of filth varying in thickness from a quarter-inch to two full inches.

The hair on his legs was a full ten inches long but it was brittle and he could rub most of it off with his hand. His skin was peculiarly colorless, except for dirt, and dry. So dry that he scraped off a three-inch strip of flesh before realizing it. Blood began to ooze through the raw gash. The blood of a dead man might look like that, just as it was turning to water.

It was a macabre thought that brought a primitive grimace to his mouth and the gesture spilt his lips. He stuck his tongue out to wet them but his tongue was dry. It felt like the smoked variety on a butcher-shop shelf. It reminded him of his thirst again and he shambled off in search of water.

His thirst was real enough—more real than any thirst he had ever experienced and he had been shot down on a waterless Pacific atoll once, and again on a burning desert. But this wasn't the same thing. This wasn't craving, yet it

was urgent. It was something not so much of the tongue and throat as of the whole body.

The old water cooler wasn't where it had been and he wandered over to the window. Actually it was no longer a window—it was a hole in the brickwork where a window had been. There were a number of rust streaks where the steel frame had been and there were broken pieces of window panes on the floor and sill.

The broken glass was light and lifeless. He could pulverize it in his fingers without even scratching them. In the window ledge he found a weather-worn hollow that held a small puddle. He stooped with difficulty, drank with difficulty. The water was hot with sunlight but no water had ever tasted so sweet and good. He thought that a dehydrated potato might feel something as he felt—if it could feel at all.

He rinsed his face and felt as if his skin were actually sucking the dampness in. His beard came off at the skin level in his hand. He bathed it again and felt tone begin to creep back into his facial muscles. He pinched his chin and could feel it numbly. A few minutes later he could feel it quite plainly, much as sensation increases when novacaine wears away.

He finished rubbing off his beard and then tried the same trick on his head. His long head hair was stronger and he could not rub it off, but he could pull out bunches with small effort. The first bunch was snarled and filthy and somehow made him think of the hair of exhumed cadavers he had seen. It was an unpleasant thought and he pulled all of his hair out. Then he noticed that his recent activities had not only broken his nails off to the quick but that sev-

eral nails were gone now altogether.

The remainder were dry, brittle, dead. In fact death was the predominant tone of his whole body. It was a recurrent thought that struck him now graphically and he stood there wondering again. Was it possible that actually there was nothing left of him alive except some small segment of the mind, perhaps the seed of energy called life that nobody could account for?

V

LUCKY'S MENTAL PROCESSES WERE SHARPENING. THEY were no longer distorted in the way of a man coming out of ether. Quite consciously he could now grasp and toil with an abstract idea such as the one he had just had. It was not instinct now but reawakened rationality that cautioned him to put off worries and complex thinking for a time.

He drank again, splashed water on his face and neck and over his upper body. His skin soaked it up like a blotter. He had an idea that he could have stood in a bucket of water and literally sopped it right up. Each time he sluiced himself he felt stronger, more *right*. He could actually feel his nervous system increasing in sensitivity and his perceptions were sharpening. But direct light still hurt his eyes.

Something about his feet had been bothering him, but up to this moment, his brain had refused to interpret the irritation. Now he thought it had to do with the floor. He squatted with difficulty and poked a finger at it. He drilled a shallow hole with his finger and found he could scoop out a shallow trench.

Was this the kind of cement they put into buildings de-

signed to withstand the terrific shaking and vibration of giant printing presses?

"Dead cement!" he thought.

The discovery shocked him. He himself might or might not be dead—but that cement was. Time alone couldn't do that in the span of a man's lifetime. Yet, whatever had happened had destroyed the life of an inorganic tough compound such as cement. And glass. And steel desks. And, now that he looked around, typewriters, which had pretty good steel in them. Just about everything else too—it was a wonder that the building was still standing.

"What a story!" he thought with excitement. Part of his mind was still back in pre-catastrophe period. This had not been any atomic or hydrogen explosion, no mere germ or nerve-destruction bomb, nothing like any of those. Whatever had happened had been something so novel that not the slightest inkling of it had been heard. Something that would *"kill"* steel and glass but leave man alive—even though somewhat the worse for wear.

He looked around now through the eyes of new discovery. The floor was covered by an irregular mass of dirt and dust. Most of it was hardened and dark. He had the unhappy idea that maybe nothing but ink was holding that cement intact, much as paint sometimes holds rotted wood. They were in a twelve-story building, held up by nothing more than hardened printers' ink—if that were true. But even dead stuff had weight if it fell in on them.

There were irregular mounds of dirt where desks had stood but he saw no sign of typewriters, unless one brittle oxidized mass had been one. There were strands of varying hardness through the dirt piles but that was all that re-

mained to tell that any equipment or furniture had ever stood there. Once there had been a circular iron stairway down to the composing room, supported by a heavy iron pole in the middle. No sign of it remained.

He wondered if things were the same in the dry arid sections of the West. The thought jumped into his mind out of nowhere and he was bothered by its presence. Some peculiar ray or wave or disintegrating force of some kind had been let loose and had done its queer job—but except for minor freaks and exceptions it would be the same everywhere.

It *must* have struck everywhere, of course. If other men were still alive in the world and able to move under normal conditions, they must certainly have visited New York. There were certain places that either friend or foe would investigate immediately and one such place would be a metropolitan newspaper.

He was moving and cut his foot and his surprise interrupted his thoughts. He saw something dirt-encrusted but sharp-edged and, picking it up, found it was part of the heavy green glass water bottle. He could sense its lifelessness from its weight and he managed to break off a piece. But compared to the rest it seemed the only inorganic matter around with any life left. So heavy plate glass might have life left in it too. At least this could cut. He could peel potatoes if he could find potatoes to peel.

It had taken him this period of orientation in a disoriented world to get his mind functioning and to cast the spell of utter disbelief and unreality. He had experienced bad fevers, delirium tremens and most of the pressures and diseases that cause hallucinations. Whatever else this was,

it was not hallucination. This was the real McCoy and it would have to be dealt with that way.

He remembered Lulu Belle suddenly and experienced a wild stab of guilt. His mental apparatus was working reasonably well again but was still anemic and on a single track. The complexity of thought to which modern man is accustomed was lacking. Whatever took his mind at a given instant filled it. He had not, for instance, been able to think of Lulu Belle while helping Jake or while drinking or examining the physical aspects of the old city room.

Now he searched for her poodle cut somewhere in that big room—searched for her with rising dismay. All the men and women present had a common cadaverous and dirty look. Men and women alike were black, were dirty, hairy, naked, emaciated and made strange garbled noises. The chief difference between them was the state of their motor synchronization and muscular reflexes.

All were skin and bone but there were variations in degree. Some had lost half their weight, some three-quarters. Some had toenails no more than four inches long, others had nails that reached three feet. Hair, too. Some were twitching and jerking, some methodically loosening up as Lucky had already done, some were sitting stupidly staring or muttering—some lying, squatting or leaning in stiff and grotesque positions.

Yet all had that common look and he grew panicky. Nobody could talk intelligibly and he himself must be unrecognizable. He'd had a subconscious cue as to who Jake was. Jake had been talking to him at three-thirty. He had no idea where Lulu Belle had been at that instant. Suppose things went on like this, and he never did learn which one

she was—or even if she had survived?

His instincts sought to calm his mounting waves of hysteria. He was saved by a sudden memory of the way he'd been cut by glass while rambling. He moved among the women, studying them, trying to sense out the one he loved. To a man whose memory was not many hours old, fresh with pictures of gay and piquant faces, what he now saw was terrible.

Whatever had happened had effected only one marked distinction between the men and women. In every case the women, most of whom had had short hair, now had hair two to five times as long as the men's, while the men had grown enormous beards. There was one woman with by far the longest hair, whimpering her heart out as she sat stroking a matted tress which broke and splintered with each stroke.

He stood beside her and watched her cry. It was clear that her limited mental processes were concerned entirely with her hair. He saw that his own recovery was further advanced then any of the others. He thought perhaps the water had done the trick. Or perhaps it was just a freak, or perhaps he had been helped to orient himself by the incident of helping Jake. The first step of return from any kind of shock was always the hardest. That first foothold on the long, long ladder.

Their mental conditions varied more than their physical. Some showed glimmerings of comprehension. Others, utter lost bewilderment. There was evidence of stark primitive fear, hysteria, uncertainty, disbelief. Some brains were functioning oddly, others not functioning at all. This woman that he stood by had her brain and emotions functioning

with clarity but seemed limited to the minescular sadness of those long thick stresses that broke where they were touched.

What color her hair had been was impossible to tell. All of their hair had the same drab dirty color. But this one had by far the longest hair, and the thickest, and she was the only one crying over the lifelessness that made it brittle to the touch. Lulu Belle's hair had been her pride. He took this for a sign and thought, "It must be . . ."

But she looked up at him and there was no light of hope, no caring, no recognition, in her eyes. Grime had soaked deep into her and covered her with a scaly shell. She had no figure left. She could hardly have weight more than forty pounds. Her face was impossible to make out for dirt. Worse, it was wrinkled, withered and distorted.

Yet he would have sworn it was his girl, and out of the shock of his initial reaction, anger flared through him for the first time. If ever he found the perpetrator of this thing —and if that man still lived—God help him!

He looked at the girl again and his anger leaped into fury. She had been pretty, shapely, vivacious enough to find a career in Hollywood if she had so desired. Now she was a bag of dirty skin and sharp, grotesquely-angled bones. She was old, a hag, something akin to a corpse, at best—ancient. Her youth gone . . .

He stopped short in his anger. *Youth ruined—Old and ancient* . . .

A thought groped for recognition in his mind. This hadn't been the demolition of a momentary blast that had knocked them out for a matter of hours, even days. This was something with a long time element. A period of time so long that a sane man, giving it serious consideration, would

accept the fact as proof that he'd gone stark staring mad!

Shocked unconscious and into a low enough pulse rate the human body could conceivably survive upon itself a month. Say even two months—maybe even three. But these ravages would require a lifetime! Even if it were only memory that had blacked out, how could they all have survived in here? There was no water, no food. There was no heat for the long winters. At times winter gales must have raced straight through here. And yet . . .

Wanting contact with another human being as an antidote for the thoughts racing through his mind, he put his hand on the head of the sobbing girl. "Lulu Belle," he whispered sadly.

Not clearly, not distinctly, but with sufficient vocal control to be intelligible. Where he pressed her hair, a big thatch of it broke off and slipped down across her shoulder.

"Beast!" the girl snarled. Then she bit his leg.

This action on her part was something which made him sure. He had found Lulu Belle!

VI

LULU BELLE LOOKED UP AT HIM AND GLARED. SHE cackled in a cracked crazy, fury-filled voice, "Well, I hope you're satisfied with your brainstorm, Lucky Flagherty!"

For all her withered, ancient appearance, he could have kissed her. At least her temper hadn't changed! She was a foothold on reality. She was the first surety he had felt certain of in a world gone mad. He was filled with a man's desire to squat and talk this over.

Lulu Belle was going straight to the point as usual. She fairly screeched. "I'm thirsty! And you keep away from my hair!"

He helped her up. She was rickety but not as rickety as he had been when he first tried to walk. In fact none of the women were as weak as the men and they seemed to be recuperating more rapidly than the men. They were more limber and their flesh was firmer. The men were recuperating slowly and were not classifiable by size or age, as Lucky managed to identify them, nor intellect certainly. The ones with the thickest, longest beards seemed to recuperate more quickly than the others. Hair apparently had something to do with their condition of survival.

Lucky helped Lulu Belle over to the window. He showed her the shallow pool in which there was water. His eyes were functioning better now and he studied this trench. He remembered now that there had been a rain channel in the stone ledge outside these windows and now the scooped-out pools that held water looked like the potholes wind and rain and weather scoop out of open boulders and buttes and rimrocks. This would be quite a reservoir immediately after a rainstorm but sun and evaporation would dry the holes up quickly.

Jake joined them there, motivated either by primitive curiosity or the instinct of the strong to join the other strong about them. So far these three were the only ones in reasonable command of their wits and bodies. All three drank and rubbed themselves with water. With a woman's instinctive knowledge of her looks, Lulu Belle very nearly scrubbed her face off. She was saved only when Lucky grabbed her hand and demonstrated upon the back of her wrist how easily her skin would strip.

It was growing dark when they finished their drinking and clumsy washing but they felt far better, far sharper, far more human, for their wash. They were very tired, however. Lulu Belle suddenly sat down right under the window.

Jake was trying to talk but the vastness of his thoughts held him bogged down in confusion. Lucky wanted to talk but it hurt him. Jake squatted to pour out a flood of meaningless gibberish to Lulu Belle, who paid him not the slightest attention, being fully occupied with gently pulling some of the worst of the dirt and snarls out of her hair.

Lucky stood off from them a little, watching the light grow dim. He wondered if it were really this dark, this late,

or if his eyesight were petering out. Maybe he could only see by full daylight now, turning blind during the evening, night and dawn hours of the day.

Others though were sensing it and all of the atavistic traits of man were evident in that room. Darkness was a thing of danger and evil and they were afraid. Some were whimpering with fear, some growling like warning dogs. Some were sensing each other out and banding into little groups. Others were crawling and crabbing off into the deepest shadows to hide alone.

Lucky sat down by Lulu Belle and yawned. The involuntary action and stretch of facial muscles nearly killed him. Lulu Belle made him get up and move around to the far side from her tresses. She made sounds, not words now, but her meaning was clear. She wasn't forgetting he had pulled out a hank of her hair.

Sleep overcame them—or coma. Lucky was only vaguely conscious that a storm broke and rain was pelting through the window holes. Yet he was conscious enough to smile—a smile of the whole body, for at long last his body was drinking, soaking in the wetness and dampness that poured over it.

In the morning he felt strong. It took no more than ten or so tries for him to get up on his feet. Thirst was no longer gnawing at his body. It was specific. It was a feeling in his mouth and throat.

He stuck his head out the window and sucked at the gleaming pool of water. He sucked too much for his condition and suffered a good old-fashioned bellyache. But the pain was another reminder of reality, a thing he could connect with green apples and too much watermelon and his

childhood. When it was over he did not regret the suffering.

Even if his time sense was cockeyed a man had to set up some kind of clock in his mind to put his thoughts and the events around him in proper order. It might have been ten o'clock or it might have been four in the afternoon. Lucky put the time arbitrarily at noon. He had already learned not to argue with his scrambled thinking processes.

It was about noon, then, when he heard Jake yell. He had already learned to distinguish Jake's cracked rusty tone. Jake was yelling like mad. He was standing out in the center of the old city room, away from the pillars, and the floor was bending under him like rubber. He was caught and sinking slowly down through a hole.

That rotted floor! Lucky thought and his mind switched off Jake's predicament entirely while it probed the idea of whether or not you could call cement *rotted*. He looked for Lulu Belle to have a talk about that. These things were important. Did you say *dead cement* or *rotten cement?* Or decomposing, maybe? Disintegrating?

Lulu Belle was sitting up on a window ledge, bathing her hair as she had been doing all morning. It was beginning to regain its normal hue of black. A dull splotchy black, true, but still black. She was crooning or humming or whatever it is a woman does with the sound they make on such occasions. It didn't sound like that, of course. Her voice still grated like a rusty iron shutter in a high wind. But normally Lucky would have said she was humming.

He went up to her, thinking about the cement. "Lulu Belle," he began with excitement.

She turned, smiling. It was beginning to look like a smile too.

"How sweet of you to notice," she purred with her cracking screech. "The rain did it. It needs lanolin badly and weeks of brushing, but at least it's strong enough now so I can wash it!"

"What?" He was puzzled.

Jake's yells reached a tremulous unbroken high F, demanding attention. When they looked he was up to his waist, half sunken through the hole, leaning forward, clutching madly at the cement floor that was bending like a saucer all around him.

"Dear Lord!" Lucky muttered, startled now into action. "A rope! A ladder! Find something for him!"

He couldn't run yet, as he soon found out. But he moved as fast as he could, going hither and yon in search of items that no longer existed except in his memory. When he came back, breathless, from a futile search Lulu Belle was pulling Jake back onto safe flooring. In the greatness of her heart she had cast Jake the ends of her hair. Bunched as it was and just drawing his weight evenly, the hair held and only a few of the tip ends were broken.

Jake looked up from his safe but prone position and gasped, "I'll see you get a raise and a bonus for this, Lulu Belle!"

"I think it's worth the night-club column," she said. "I think Lucky would have let you just drop through to keep from getting fired."

Jake's eyes showed definite signs of some of his old tough fiber. "That is something I'll take up at length when I see Prescott!" he growled.

Minds were still working strangely. The physical evidences of catastrophe were clear enough but numbed senses

refused to grasp the fact of a strange new world. They were all still involved with their thoughts of before three-thirty p.m. *yesterday*. Jerkily, it was true, yet in their thoughts their mental tuning had picked up again at 3:31. Memory and custom, habit and instinct, all kept crowding into their thinking. Modern man seldom pauses to realize what a complex mechanism nature has built of his mind and body until something goes awry.

Lucky was miffed and he was an Irishman of some pride. He didn't even bother to make excuses. But he did want to know how Lulu Belle had come to think of that trick when *he* hadn't!

Sounds were beginning to intrude upon their ears from above and below. Not loud, not clear. What was left of the building was still thick if not strong. Lucky could discern voices, mostly raw yells or frightened bursts of sound, some few issuing intelligible words. He judged others were in about the same condition as their own group.

Then voice sounds were masked by heavy irregular thumps. Even now, derelict as it was, this building wouldn't shake, but looking at the hole Jake's weight had made in the floor, Lucky could picture the cause of those thumping sounds. Hysteria had broken loose somewhere above and frightened people were rushing pellmell like a stampeding herd. One floor had fallan through, perhaps, started another and, shortly the entire building would be caving in!

They had to get out of there fast. But how? This floor was two stories above the street and there was no rope, nothing usable by which to get down. Their emaciated bodies could never survive a jump or fall from that height. The elevators certainly would not be running.

Then, as if the idea were quite remarkable, he thought of the stairways. Of course. They were there for emergencies like these. But then his gaze crossed to the empty hole where the old iron stairway to the composing room had been—and that had been probably the toughtest stairway in the building.

Anxiety tore at him. He stole out to the hall to look at the old fire stairs beside the elevator shafts. He felt a surge of relief! The stairs were still—*no, they were not there!* Just the metal shells, broken and rusted, forming the vague shape of a stairway out to the metal rails. Yes, that was it! The *rails* were there. And the rails were real. Rusted but still intact, solid as Gibraltar! He was almost crying with relief as he grabbed the heavy metal post that held rail to landing.

He could have been grabbing the most ancient and delicate eggshell. The post crumpled in his hand. It did not even make a crunching sound. There was not enough strength in the whole length of rail to hold a pound. The mere vibration of his action sent the entire structure crashing—or what should have been crashing. It landed with a crackle like tissue paper. The smoke of its disintegration came up in billows.

He drifted morosely back to the city room. There was a babble of rasping imbecilic conversation. The night's rain had done much to quench thirsty bodies. All of the group had drunk and there were only a few still entirely blacked out with shock. Likewise there were only a few who approached the recovery level of himself, Jake and Lulu Belle.

"Marooned in a caving building!" he thought. But what could he tell them? Even to those who understood it might do more harm than good.

Again, the tocsins of yesterday beat out signals in his mind. *"Do nothing . . . Wait a spell . . . Keep cool."*

Yes, above everything, keep cool. His mental faculties were not strong yet and the nerve strain of recuperation must be pulling them taut. It would not take much to send a mind into a tailspin.

Then Lucius Prescott came through the door.

Not a Prescott to be recognized physically. He looked worse than anybody else present. But his thumb was in a vest that no longer existed and, from long habit, he was bristling to find something wrong as he entered the room. Cracked as his voice was, he still came forward making the boss' whip-sound of *"Hmmmp! Hmmmmp!"*

Yes, it was Prescott. The more responsive knew it without question. His mere arrival drew their confused thoughts into some order, acted as a brake upon anxiety and panic.

He stopped and grabbed the armhole of his missing vest a little tighter and removed an absent cigar from his mouth. He drew himself as erect as his physical condition permitted and struck his proclamation pose with one foot forward.

He had just one toenail left, Lucky noted, but this one curved up about a foot and a half like a Turkish slipper. It gave his gaunt figure the final touch for a completely ludicrous appearance. There was neither dignity nor power left to his deflated withered stomach. But habit was strong and only yesterday, at three-thirty, they had known him as boss. Even the more retarded quieted in their mumblings.

He looked them over one by one in his customary way before some tremendous pronouncement. Then he piped, for that was the best his voice could do, "My staff and fellow workers—something terrible has happened!"

In spite of his voice they were impressed. They waited patiently. But apparently he had no more to say. He was looking at them as if demanding to know what information they were withholding.

There was a dead silence, then, suddenly, a burst of hacking laughter. Prescott scowled. He glowered. But his dignity was deflated. Who could look impressive with a wrinkled stomach, with skin hanging like a sack over a starved body, with one dirty toenail sticking up almost to his knee? *And* nude! It must have been the first boss who invented togas and pants, Lucky thought.

Prescott's staff laughed until they were crying with cramps. It was a contagious thing and shortly even he was joining in. It was this new world's first burst of laughter and it did for their minds what the night's rain and their first long drinks had done for their bodies. It dispelled the terrible repressed fears and panic, gave them back sanity and a sense of balance.

They needed it, for from below sounded a thunderous dull boom. This time the whole building shook and from the ceiling filtered down sheets of fine particles.

Prescott said immediately, "The presses must have dropped through to the basement."

That brought Lucky's mind back to the stairway. He pointed to the gaping hole where they used to run down to the composing room.

"Every stairway in this place is like that. We're marooned."

Grim awareness washed away their remaining mirth. But they wore the sober gravity of intelligent beings ready to face a difficult fact and problem. Without that laugh

they would have blown up like so many skittish monkeys.

Prescott looked at Lucky. "Nothing left like hose or rope?" He answered himself. "No, of course not. No metal, no wood."

Lucky remembered being cornered in a shell hole once without so much as a knife in his entire outfit. They had been on their way back, relieved. They had thought they were well behind their own lines. It had felt like this.

Then a strident deep-chested voice was advising, "Prescott, you'd best bring your muckrakers out of there while you can get out!"

Heads turned toward the voice. Drega, for it was certainly he, was half-framed in the window. He wore no collar, tie or shirt but *he wore a suit!*

"Drega!" Prescott crackled. "How'd you get up there? You got a ladder?"

"Why," Drega grunted, "I'm standing on the ground. Haven't you looked out the window yet?"

Lucky winced inwardly. He had looked right out of it. He had seen the salt-grass slope but it hadn't registered. In his mind's eye there was a street there. It had been there yesterday. Where had it gone?

VII

THE SIGHT OF DREGA STANDING THERE IN THE WINDOW, *dressed,* plus the information he gave, momentarily stunned the group. They stood rooted, staring, some disbelieving, some frozen with relief.

Drega climbed in through the hole. He said to Prescott gently, "Can't you *understand?*"

"Of course!" The publisher nodded and moved to organize aid for the more feeble of the little group.

Somebody came unstuck and started to shriek and run around wildly. Everybody else stopped again and panic signals spread in their eyes. Nobody did anything about the berserk man until Drega caught him by the arm and smashed his jaw. The man went silent and dropped in his tracks. Drega simply nodded to Prescott to take care of him, then walked about, examining various structural points of interest to him.

Lucky decided that Drega was far and away more recovered than any of them. Mentally he seemed almost normal. He had never liked Drega. He had never liked the things he stood for. But he had to give him credit. It took chilled-steel guts for a normal person to step into a crum-

bling building among what amounted to a bunch of maniacs, just to examine something that might sometime prove useful or profitable!

It crossed his mind that if love of money or love of power gave a man that kind of nerve, maybe it wasn't altogether evil. It was clear from Drega's actions that he had come inside primarily on a selfish mission. Yet in the course of it he had already probably saved them from death.

The ceiling was showering a steady hail of rotten stuff upon them now. In one place it was sagging down, just as their own floor had sagged under Jake's weight. With a dry rending noise a sizeable crack shot across one wall.

Drega was walking around a pillar, studying it. With no more than a brief estimating glance toward the crack, he pursued his interest until he had satisfied himself on the point he wanted.

He joined the shambling crowd then, muttering a word here, a word there, half-order half-encouragement, impersonal as a chunk of ice, yet somehow sparking them up to double time. He made no physical effort to help get the feeble out. Just once, when Jake's hand slipped and a woman was going to crash her head, he stepped forward and caught her.

There was another deafening boom from below and this time the building rocked. The floors groaned and growled and shivered. There was a new ripping and sagging movement in them. The drift of stuff from overhead came down like rain.

Panic threw its freezing shadow on them again but Drega snapped, "All right. All out! Get moving!" And they moved.

Then came a half-animal cry from back in the city room. They could see a figure stumbling around in blind fear. Lucky was half out of the window and started back inside to help whoever it might be.

Drega shook his head decisively. "No time."

"To hell with you!" Lucky snarled and came on through.

Drega caught him under the armpit and literally pitched him back outside. He came through the hole himself, last man out, just as a rending roar told them that the whole floor had gone down.

The slight fall and jar had hurt Lucky badly. He was half numb with pain or he would have gone for Drega in sheer anger. It was hours later before he would admit to himself that he would have gone down with the floor, vainly trying to save that poor wrecked figure, had Drega not judged things rightly and thrown him back outside. Yet never could Lucky feel actually grateful. That kind of cold judgment was something that made a decent ordinary fellow shiver.

There was a lot of activity outside. Somehow, Drega had automatically taken command. There were about fifteen men there who didn't belong to the newspaper at all. Five of them were dressed like Drega, but none of them seemed to be in his mental or physical condition. The remainder had the look of construction men. The head one Lucky would come to know as Tim Lanahan.

All of these men were standing around more or less idly when Drega appeared. He had them hopping along with Prescott and his crowd almost on the instant.

"Get the feebles back out of the way!" he ordered curtly

and pointed. He had already sized up the landscape better than Lucky, who had looked at it at least twenty times without seeing it. Even now he had to turn and look.

Sand-topped dirt mounds ran out here for a good way. As far, Lucky judged, as the end of the docks that should have been there. Beyond that, the river ran, just as it always had. The shore line had merely expanded to cover the old docks and piers.

The front of the building was a terrible sight. It had been twelve stories high. Six were left above the one they had come from. What had happened above he couldn't guess but there were trees growing up there—big trees!

Below that point there was no sign of life on one floor. But half the windows of the five remaining floors showed wildly gesticulating shrieking people. Those on the fifth floor didn't have a chance. But the fourth floor had been the telephone floor and technicians up there had found enough serviceable cable to rig a cable to the ground. Lucky had seen a quarter-inch piece of the stuff used for swing ropes when they had their insulation on. Now there was no insulation left on the cable and the boys up there had woven a rope of the raw wires—eight or ten inches in diameter. This gave Lucky an idea of the strength it must have lost.

They were coming down the rope as fast as they could, wearing slip-pads on their hands made of woven wire. These were attached to a thin length of woven wire and when they reached the ground they took off their "mittens" which were pulled back up for the next user.

The haulers brought down the last woman, who had probably been an operator, while Lucky was working off the hurt of his fall. A man wearing the mittens got onto the

big cable rope first. Then the woman was set onto the cable above him, bare-handed. She took her own weight on the way down, except when strength left her. Then the man would sling a leg lock on the cable and let her rest against his chest until they could go on.

When they reached the bottom the woman's hands and breasts were badly cut and scraped. The man was in pretty good shape, having been protected by the mittens.

There would be little chivalry while this new world was getting started! The first work would fall upon the men. When it came to a choice women were expendable. The men were not.

Lucky made a mental bet Drega had ordered things done that way and he was right. When Drega had come on the scene he had found the fourth floor boys being chivalrous. A woman was wearing the mittens but she was frozen midway down the cable-rope, tying up its use. She could cling there quite a while with the help of the wire mittens.

A man had been in the proper position below her but he had had no mittens. She was frozen with fright and wouldn't move further. The man had clung, pleading, as long as he could. Then his cut hands couldn't grip any longer and he had fallen away and been killed. In the end the woman fell and was killed too. And the four floor had lost half an hour evacuation time.

Drega was standing back on the mound now, hands locked behind his back, watching the wall, calling orders, keeping the line of capable moving to help the feeble. Plenty of people were getting hurt—plenty needed help. People on the third floor were swinging out onto the cable rope and coming down bare-handed.

They seldom lasted the full length but it gave them a start so that, when they fell, the distance was not too great. People on the second floor were jumping and dropping or pushing out their own weaklings. All of them needed help to get back out of danger.

A man jumped out of the third floor, bounced and twisted on the ground, moaning. Two other men started toward him to give help.

Drega's voice ripped out like a rusty saw. "Let him go! He's crippled too badly. Lend your hand to that man coming down bare-handed!"

That's the way it went—Drega's way. No pretense, no weakening, no humane kindness. Let the badly hurt die, save only the strong. He was not concerned with the Kingdom of Heaven. This was Earth—and he was Drega.

Lucky could hobble now and he found a weakling who could still walk with help. He led the man back over the mounds to where a camp of sorts was being formed. Shortly there was a sound like distant thunder and above that a shrill chorus of human cries, then a booming crash which shook the ground. Dust mushroomed up like a small atomic blast. Then there was complete silence.

After a while Drega came over the ridge, heading his work crew and the few evacuées who had escaped before the building collapsed. He looked sturdy but he was almost dead on his feet. When he sat down he quickly passed out.

Not until then did Lucky realize that nothing but cold nerve and dynamic willpower had put Drega's physical and mental recovery ahead of the rest of them. Outside of his suit he had probably no advantage save a stubborn determination to fight, to survive, to master, and to salvage what

could be salvaged. Conceivably, he might not have had as much good drinking water as Lucky.

However, Drega's crew had enjoyed one advantage. Crossing from Drega Towers they had found a shallow inlet from the river and were thus able to soak and clean themselves comfortably in sun-warmed waters. There had been both good and bad in the fact that the inlet was partially salt water. The salt had proved a curative remedy for their bodies in general but it had been harsh upon parched skin with no protective oils. Several of the crew, the suited men especially, were suffering from bad sores and skin abrasions as a result.

The sun was still high but it had been a hard day for the whole group. They were glad now merely to find water at the river's edge in which to bathe their sores, or to sit in the sun's warmth, soaking in its healing rays. Quite a number had regained the power of speech and more were finding tongue every minute.

It didn't matter what they said, either to speaker or listener. They were realizing the full impact of the colossal devastation that had smashed the world they knew. It was good to hear another man's cracked voice, even without understanding a word spoken.

Lucky had been looking for Lulu Belle and hadn't found her. Then it occurred to him that she might be down at the river, bathing. He worried lest she might move in too deep or slip and not be able to get back up in her weakened condition. Besides, he just wanted to be near her, so he got up to search.

He had been foggy or at least limited in his thinking until then. It had taken time for him to adjust his vision to

the outdoor glare. He stood still, trying to focus on the scene around him, looking for familiar landmarks.

There had been, at around noon yesterday, three bridges within sight. Now no span of any kind crossed the river. Where the nearest had been he could see the river swirling and rippling like treacherous old Hell's Gate before engineers blew the whirlpools and hidden rocks out of it.

Southward, where Wall Street's skyscrapers had piled one upon the other, no sign of a tower any longer stood. A few broken tops of buildings, six or eight floors high, poked up through forests which rimmed the plain that ran straight southward. This plain was broken only by a few low buildings and inlets. Northward the view was much the same.

Everywhere, on all sides, proud skyscrapers of the city had been reduced to endless mounds. Not hills, just mounds, although some were broad and bulky. An ancient oak forest crowned the highest mound in sight, such trees as no one in American had seen for a hundred years or more—before three-thirty, E.S.T., March 15th.

Something was scratching persistently at Lucky's foot and he balanced to brush it off—no easy trick. His mind was still on the vast age of visible forests all around him when he felt the irritation again. Something about it this time was decidedly uncomfortable. In fact, it was a poke! Something cold and clammy and covered with fuzz suddenly hooked around his big toe.

Lucky gave a yelp and jerked free. He stole a surreptitious glance at the ground. He couldn't yell again this time. Ice coursed through revived veins. A finger—a real finger—was crooked and wiggling at him right out of the ground!

Just exactly as he might beckon a waiter!

VIII

LUCKY'S YELL DREW QUICK ATTENTION AND PRESCOTT came and stood beside him, staring not too happily at what he saw. "Monsters!" he muttered hoarsely. "Right here in the earth beneath us!"

"His finger is green and furred," Jake informed them. "With nails like flint!"

A second finger wriggled through the earth and beckoned to them. Jake straightened and drew back uncomfortably. "Do we disregard it, or just get out of here?" he asked.

"You might help him," Lulu Belle suggested through the crowd. "Can't you see he's buried?"

Lucky stared over the crowd at her. "That's just it! If he's buried how come he's alive—and what's he doing tickling my toe and beckoning at us?"

"Oh!" she flared with disgust. "What are any of us doing here—naked, starved and talking like crows! Go get a shovel and dig him up!"

A great idea—except there was no shovel. But it stirred action. A few of the men began to scrape around the fingers, aimlessly at first. Then to their surprise, the earth turned

out to be soft and spongy and they began to rip it away with their hands. They uncovered a man's head and then his shoulders. But what an exceedingly strange-looking man!

His hair was a mass of matted roots. His entire body was covered with a dark green mosslike fungus growth. Unlike the condition of his rescuers his nails were hard as stone, could easily have been flint. There was a hard shell-like covering over his closed eyes and more roots served for a beard and where chest hair should have been.

They pulled him free at least and laid him out on top the ground. He muttered something that sounded like, "I'll finish the masthead in no time, sir." Then he slipped into a coma as had the others at first.

"Could you make that out?" Prescott demanded, self conscious over his momentary qualms. "Did he say *masthead?*"

"The sailor!" Lucky exclaimed. He looked back at the site of the newspaper building, mentally measuring the distance. "This would be just about right," he added. "I think it's the man who was painting the mast on the *Valparaiso* yesterday."

Prescott snorted. "How could he get to look like that in one day?"

"Well . . ." Lucky began uncertainly. Then they all stared at each other, the still unanswered question vibrant among them. Drega had joined them now and stood examining the sailor. He had nothing to contribute to the answer either, apparently.

Then Lulu Belle was telling them, "Men are so silly. What's it matter? I'd say we've been asleep two or three thousand years if you asked me. What I'm worrying about

now is dinner!"

"Three thousand years!" Prescott repeated in dismay. He looked at Drega. "It's impossible! But—but so is *that!*" He gestured at the sailor. "What do you think?"

"No quotes," Drega told him. "I want to see what's happened in arid atmosphere away from this coastal salt air. But we see trees growing all over town, trees that must be nearly a thousand years old. And they're rooted in mounds that must have been buildings, I feel sure.

"One mound, if I guess rightly, is the ruin of St. Genevieve's. I built that church. It was built around steel but the stonework was solid masonry and at the time we built it we stated that, short of earthquakes and A-bombs, it would stand a good two thousand years."

"Two plus one," Lucky said. "That sounds like three. But what happened? What's happened to us in all that time?"

"I got hungry—very, very hungry," stated Lulu Belle candidly. "Now, Lucky Flagherty, are you going to find me a steak or just stand here showing off your gorgeous physique?"

Lucky crimsoned. Of course, he had known he was naked but it was the first time anyone had actually called attention to his nudity—and to the sorry shape in which his body stood.

"You might get some decent covering on yourself!" he barked.

"Oh, but Lucky," she purred, "I've been dressed for hours!" She pushed through the crowd to show off the sarong she had made of her long jet hair. She had woven it around her in grass skirt fashion. The men looked and were

suddenly aware of her sex. The women looked and were suddenly aware that fashion was back and that they had nothing on!

Cavalierly Drega remarked, "Charming—but hardly enough to keep you warm!" Signaling a man who wore one of his indestructible suits, he made Lulu Belle a present of the fellow's jacket.

Lucky glowered and filed away for future reference the fact that Lulu Belle, who had ten or twelve feet of heavy hair to wrap around her, got the coat while some of the women who had gone completely bald in their survival struggles still shivered without attention.

He had disliked Drega since he first met him. But Lulu Belle obviously considered Drega a true gentleman and a born master of men. Furthermore he looked quite outstanding in his own suit.

It was strange, but the few men who wore Drega's suits quickly won respect out of all proportion to their actual worth during the first trying days of the new community. They received homage before they contributed even a sensible word—save in the case of Drega, whose leadership was undeniable. The fortunate few were also the objects of vast envy and conniving, which reached Machiavellian level in the dignity-hungry person of Lucius Prescott. Never, he knew, would he be able to cammand dignity again until he could appear clad—at least in pants!

Drega glanced at the sun and announced, "Well, it's too late in the day to go surveying. We can use the rest of the time to bathe and plan. Now has anyone else here been abroad in the city?"

Nobody answered. Drega waited, then said, "Then I'll

tell you a few things I saw coming from Drega Towers. First, not a building is left standing that was not built of masonry. Some of those towers had steel in them, but in my opinion, every scrap of steel and iron has been reduced to pure rust or oxidized beyond recapture."

He looked around. "Do you understand what that means? Do you, Prescott?"

"Well—errr—hummmm—*hwww!*" Prescott considered it ponderously. Then, like a child solving his first two plus two, he answered, "Of course—it means there is no iron."

Drega nodded with a rare glint of humor. "And that means no iron tools if true," he said. He stretched his hands out before him, palms down, then palms up. "These are just about all we've got to survive and rebuild with."

He had a trick of looking about him as he talked. He looked at the grass, at the sky, at the forests, at the wreckage of the city.

"As far as I can guess it's late Spring. We shouldn't suffer any more really cold weather for a while. Maybe the forest is our best protection. There are plenty of vaulted caves within. We saw a few birds on the way across the island but not too many. Practically all of them were water birds.

"Water is going to be our first and most serious problem. None of these inlets have drinkable water and so far I've not seen any springs. It's possible there is not a spring reaching the surface of this choked ground. This soil which we are standing on is not soil at all in the usual sense. It is an enormous pile of rubble and rubbish, composed mostly of disintegrated building material permeated with all kinds of chemicals and inorganic substance."

He coughed and reached for his throat to massage it. It had been a long speech for a man so long unaccustomed to speaking. After a pause, during which no one spoke, he cleared his throat and continued.

"There are many things to find out, many things to think about. Right now the two foremost will suffice. Nobody is to leave camp at any time in parties of less than six. The first tools to be made will be war tools. This city is coming alive with starved and half-demented people. We have already witnessed cannibalism on our trek across the island. We saw a man torn apart and eaten while he was still alive."

He let the full horror of that picture sink in. He let it wallop them right in their empty stomachs. He wanted to shock them into using the utmost caution and he took his usual blunt, harsh way of doing it. He accomplished what he had intended to accomplish.

"Also," he added, "it may be months before we find trails on which we can walk with perfect safety. The wrecking of this city took thousands of years. Buildings gradually sank in decay. Rubble and fill gradually heaped over them and formed the ground we'll have to walk upon. But in the meantime the underlying supports rotted and disintegrated and the surface is literally based upon nothing but air many places."

He paused again and then finished hoarsely, "That's all for now."

Lucky stood listening with grudging admiration. He and his companions had liked to think they had some pretty good brains in their newspaper crowd. Prescott had been no slouch at piling up a good living and building a good paper

in his lifetime.

But now, while they were still trapped in a frenzied chaos, Drega had already oriented himself, faced the problems of this strange and bewildering new world and ventured from his cave of reawakening. He had found a crew of men to back him, made a daring trek clear across the island and noted important details as he came. Already he had taken command of such survivors as he found, organized them roughly but effectively, and laid down the primary problems, warnings, and rules.

As for himself, Lucky admitted ruefully, he was still wrapped up in fancies and questions about what had happened. Yes, it was easy to see why men like Drega inevitably forged ahead. Like them or not, it was a mighty lucky thing for mankind that there were a few like Drega.

By this time a number of the men had regained sufficient strength for light chores. Drega sent several of them off as a forage crew to pick up driftwood along the river. Lucky was not one of the crew he selected.

Drega was frowning, trying to figure something out. Finally he glanced around, caught Lucky's eye and beckoned. "Were you ever a Boy Scout, Flagherty?" he inquired.

Lucky shook his head. Drega sighed, said. "Too bad. I've got men here who can bankrupt a government and men who can trouble-shoot a million-volt high-tension wire in a blizzard. But I'll bet I haven't got one man who knows how to build a fire without a match!"

Lucky thought for a moment. "Say," he said, "what condition is your watch in?"

"Why," Drega grunted with surprise, "I haven't looked!"

He glanced ruefully at his wrist. "This one just *went!* But out of sentiment I used to carry a pocket watch too."

He reached into his watch-pocket carefully. Lucky held his breath. Drega would have carried a most expensive type of watch, probably heavy platinum, with a real crystal face-guard. Remembering the chunk of heavy water bottle which had cut his foot, he thought there was just a chance.

Drega pulled out his watch with extreme care. The case was oxidized into brittle junk—but the crystal was still intact!

"Lord!" Lucky cried. "Don't touch that crystal!"

"No," Drega agreed. "In fact, I think I'll put it down."

He squatted and very carefully laid the object in a small patch of sand.

"Now," he pointed out, "We have a problem. How are we going to get that glass out of there without vibrating it?"

They had no sharp-edged tool. If a knife remained in existence, which was extremely doubtful, it would be oxidized more severely then the watchcase. Lulu Belle came over and listened to them discuss the problem. Then she drifted off toward the river—doubtless to wash her hair again, Lucky thought with masculine irritation. But shortly she returned with two mussel shells.

"Would these help?" she asked.

"Lady, God bless you!" Drega said fervently. "You'll be honorable custodian of the fire for that idea!"

Drega thoroughly respected a person, male or female, who didn't blabber and who made the most of whatever was at hand. He started to reach and then stopped and shook his head.

"At best, I'm ham-handed. So is Tim and all his men.

We need a jeweler. This is too precious to take a chance."

A sentinel shouted a warning from the ridge just then and shortly afterward a lone figure drifted into camp. It was Mr. Herb Oliver, the inebriate who had seen the cow. What he had seen since had not reassured him further—quite the reverse.

He looked them all over sadly. He realized, of course, that they were all part of the hallucination that had attacked him. He was having a hangover three thousand years delayed!

However, the group were human beings and friendly figments of the imagination, which afforded him some relief. He mentioned his name formally and considered the watch with interest.

"I'm afraid, sir," he told Drega, "you'll have difficulty getting *that* to run again."

"What makes you think so?" sneered Lulu Belle.

"Well, Madam"—he squinted around at her—"it happens to be my trade. I'm a jewelry repair man, sirs and ladies, and never yet did whiskey cause me to scratch a case or miss my correction on a balance spring."

Drega beamed. He explained their problem. Mr. Oliver sat down cross-legged, examined the shells and considered the infinitely delicate job presented him. It looked as if he were designed to be a jewelry repair man even in delirium tremens.

He picked up the watch. He held it directly before his mouth and touched the crystal with his tongue. Just ever so lightly but apparantly firmly enough to give him the information he sought.

"Remarkable!" he commented. "This is a shell of crys-

tal so thin that I doubt if the most sensitive precision instrument we have could grind out its duplicate!"

He felt of his throat with his free hand. "Ahem! I don't suppose you would have just a jigger or two of whiskey about? Purely a nerve tonic—by way of aiding this operation, you understand!"

Drega started to shake his head when Lulu Belle piped up blithely, "Why, of course, we have a whole keg! You don't mind being served in a sea shell, Mr. Oliver?"

"Not in the least, my dear young lady," he assured her. He watched her move away across the sand dunes. His eyes were brighter, worry was leaving him, there was a faint flush on his pale face. Most assuredly, if the DT's supplied him with congenial company, a job, an excuse to break the pledge and thoroughly enjoy a free conscience all at once—why, he was better off than he had ever been as an upright citizen!

Lulu Belle returned shortly, bearing a clear liquid in two large deep shells.

"I hope it isn't too raw," she said to him. "It hasn't aged much. It's still white."

He took the first shell from her hand and poised it. He took time to make an appropriate answer and a toast. He tossed off the liquid, blew a resounding breath of fiery satisfaction and smacked his lips. He permitted himself to be urged, out of nothing but courtesy, of course, to drink the second potion.

Lucky watched this with complete befuddlement. He didn't believe there was even drinking water around, let alone whiskey. But Mr. Oliver had given evidence of a rumpot's true appreciation and now was showing both gratitude

and the effects of his potion. He had perked up, his senses were sharper, his concentration keener. He sang a happy little tune inside himself—in a good mood to do good work.

Mr. Oliver shot cuffs that no longer existed, reached for a jeweler's glass that likewise was missing. He murmured, *"Tsk! Tsk!,"* adjusted his native vision and examined the watch minutely. Then he said in high good humor, "There is only one trouble, Mr. Drega. We can get the crystal out but it will probably break."

Lucky gave him a disgusted look and would have argued or just gone away. Drega sat quietly, trying to probe the little man, failed and finally asked, "What can you do then?"

"Well, I can try," Mr. Oliver said. "The problem is this. It has not really much to do with tools. We dare not cut through the casing, which is oxidized solid in any case. What we can do is just cut the glass out, and the shells will serve quite well. But should we be able to cut the crystal without shattering it, we arrive at the end of the cut, Mr. Drega, and the crystal is going to drop onto the corroded face."

"That short drop will break it?" Drega questioned.

"Like a cannon shot," Mr. Oliver nodded. "That crystal consists of nothing whatever but the depth of pressure applied in the final polishing of the surface. Such polishing is done with the most sensitive precision instrument, turning the finest of chamois over the surface with the least pressure attainable without prohibiting contact. In a manner of speaking that crystal has been leached to little more than the original polish."

"And yet it survived some rough travel and movement!" Drega mused.

"In its position in the case," Mr. Oliver pointed out. "A

miracle in any event. But you're aware of the enormous properties of tension and pressure?"

"Once," Drega smiled ironically, "I knew something about them." His face sobered. "But now what would the chances be of making the final cutting upside down? Could you work from underneath?"

Mr. Oliver's neck streched upward like an ostrich's. He regarded Drega with rising respect.

"Sir," he said, "you are a man of my own caliber. It will require but one stroke."

He cleared his throat and darted a glance at Lulu Belle.

"But of course." she nodded. "In the interests of the project."

She smiled and picked up the shells and started off. Lucky followed her.

"What the devil are you putting over on that imbecile?"

"Why," she sniffed, "nothing at all! Except maybe, a slight abuse of the word 'whiskey'."

"Well, what are you giving him that's got him kidded?" he asked.

"I won't tell you," she answered. "You might turn into a drunkard."

She shooed him off and went on to the river alone.

He followed her, Indian fashion. What he saw was Lulu Belle heading along an inlet toward a brackish swamp of salt grass. She simply dipped up this half-stale, half-salt water and came back where she caught sight of Lucky. She sniffed and tossed her head at him.

"Well, this water tastes like the devil! Bad enough so nobody would believe it's water. And people with throats

and tongues like ours wouldn't know what they are drinking!"

In any case, it had worked on Oliver. When they got back he was already busy with several stones, sharpening his shells to a fine cutting point. By sundown he had them finished. In the meanwhile a man who knew flint when he saw it had been discovered and given the duty of finding it if any existed.

Drega had hoped for a fire that night but there would be none. It was the first time any of them had felt chilled and the second time that pangs of hunger began to assault them. This interested Drega particularly for it indicated that nature had protected them against eating until their bodies had soaked up sufficient water. It showed they were again approaching normalcy if they now felt the chill when they had not done so previously.

Shortly after dawn Drega was up and stirring, although most of the camp was still deep in slumber. He had already been to the river and bathed and finished his routine chores and taken a walk when Lucky awakened. Lucky made a bet with himself that Drega would rouse the camp and begin cracking the whip. Lucky lost the bet.

There was nothing mean about Drega. He was simply tough. If men needed sleep to regain strength he knew he would be a fool to waken them.

The difference between toughness and meanness was an intangible one under the circumstances, and one which a man like Lucky could not fathom, could never understand or believe. Maybe, as a Mr. Philip Wylie once pointed out, "Momism" had thwarted men. Not even the experiences of

war could teach them what their great grandfathers knew at an early age, that only the tough survive in this world. Or that a tough man could make a pretty good friend.

Lucky was irked at his own misjudgement when he got up and went down to the river for a bath. He could move now without feeling like a puppet being jerked on strings. His vision was better, there was tone in his body. And hunger was like a wolf inside of him.

When he came back Lulu Belle and Drega were talking and signaled him to join them. He came up, scowling, jealous, imagining a conversation far from what was actually under discussion—mussels and other shell-fish. Lulu Belle had found plenty of shells along the shore but no signs of beds, even though the tide had been out when she looked.

Drega said, "I wouldn't know a mussel-bed from a flower-bed. Suppose we put you in charge of a location crew?"

Lulu Belle smiled and pulled her coat tightly enough to have looked highly alluring if she had had anything to fill it with. Lucky meant to go with her but Drega, acutely conscious of his limited manpower, headed Lucky off before he could move.

"Lucky, you're a man with a peculiar talent not only for observation, but with enough imagination to know what to look for."

This was a body blow to Lucky's determined truculence. It was hard to feel properly pugnacious toward a man whose opinion agreed with yours.

"Now," continued Drega, "I'm sending Tim Lanahan and his crew to make a preliminary survey of the island to see if there's anything salvageable there we can use. If it's

structural stuff Tim will find it. But he could step in a pile of diamonds and not know it."

Lucky nodded. "You want me to go as a sort of floating observer?"

"That's it," Drega said. "I want a news report from you. But stick with the crew, do you get that? You aren't exactly fat but you'd look like pretty good eating to some of the human wolf-packs we saw coming over."

Lucky thought Drega was pouring it on a bit thick but apparently Tim Lanahan didn't. He had already picked a number of choice pieces out of the driftwood they had collected and had his boys whittling out cudgels and clubs shaped like fire-axes as best they could with shells and stones.

Lucky was in two frames of mind about Drega. Grudgingly, he felt proud at having been chosen for this job. But he was *not* going to fall under the Drega spell! Shaping himself a cudgel he made a point of letting go one gripe. He expressed the opinion that Drega might have let them wait until they found something to eat, at least.

"We'll eat," Lanahan grunted.

Lucky stared at him. "How and what?"

"Fish—birds too, maybe," the tough trouble-shooter told him.

"You find fishhooks and a few lines?" Lucky asked sarcastically

Lanahan flicked him with a glance. "Save that chip on your shoulder for real fighting, fellow! There are a lot of inlets below here. You can see 'em. When we find a shallow one, we'll probably find fish in it, and if we can't dam it and pole the fish out, I'm a Rooshian!"

"And birds the same way?" Lucky inquired.

Lanahan frowned. "Maybe later—when we get the cooking going. Some of the sea-birds nest on the inlets at night, and you can pick 'em right off the water after dark."

Lucky's beef wore off and he grinned.

"Okay, Dan'l Boone!" he said. "It turns out to be a break to go with you!"

"Drega's idea," Lanahan said. "Ready? Our first stop is for chow."

Moving carefully because of the treacherous terrain and keeping in a well-ordered group because of the danger of roving bands driven to cannibalism by starvation, the Drega expeditionary force began working its way southward, seeking rations. As they passed out of sight of the rest of the group Lucky Flagherty felt a sudden sense of almost primeval aloneness. He stopped and looked back at a pair of ragged near-naked sentinels, posted atop a low mound on the southernmost rim of the camp.

As he looked he saw a slighter figure, wearing what looked like a black skirt, appeared beside them. Lucky waved —and Lulu Belle, for it was she, waved back. The reporter wondered if he was ever to see her again. A sudden lump rose in his throat.

"Come on, fellow." Tim Lanahan's stringy but still strong fingers closed about Lucky's bicep. "Do you want to eat supper or serve as the main dish for some of those?" He nodded toward a pair of scrawny naked figures, animals in human form, who slithered out of sight behind a heap of rubble as they realized the foreman had spotted them.

Lucky shivered and lagged no longer.

It was rugged going even after they found an inlet that

seemed to be full of fish. They flailed about with their clubs and managed, during an hour of cursing and barked shins, to come up with half a dozen shad and mackeral. Tim tossed back the shad. "Too bony," he said.

"What do we use for fire to cook them?" asked a hungry-looking member of the party, an ex-stevedore.

"We do like the Japs," said Tim briefly. "We eat 'em raw. And remember, there's plenty of fresh water in raw fish."

Lucky, with South Pacific memories of the Second World War, grinned and nodded. He had brought along his piece of half-dead glass—which proved to be strong enough to scale and cut the sea-creatures into chunks. It was not a very palatable meal but all of the party were hungry enough to get some of it down.

That night it rained—and while he did his turn on watch Lucky shivered and dripped—but did not curse, nor did the others. Their skins were still too hungry for water and all knew that rain meant puddles of fresh water for the day ahead.

Tim stayed north of the dangerous canyons that had been the Wall Street district. It was unlikely they would find anything of value, since there was little there more valuable than gold—and at the moment gold was worth nothing to them. Furthermore the overgrown man-made mountains, what was left of them, were doubly dangerous, both with the prospect of instant cave-ins and the threat of assault by surviving financial workers.

So they spent the first full day of the expedition working their way westward across the island. As they moved past what had once been City Hall Park, Lucky found himself

pondering the changes that had overtaken the once rolling, fertile and tree-laden island of Manhattan, thanks to Man.

The original hills of its lower half had long since been leveled by pick and shovel and machine. Its brooks had been buried beneath masonry, its swamps and ponds filled in with the residue of its hills. This portion of the island had been leveled by man in the interests of transportation.

Now, again thanks to man, it was once more an island of hills and trees. Yet no longer was the ground generally fertile or safe underfoot. It was soil over the greatest pile of rubble the world had ever seen, a greater trash-heap than Berlin in 1945, a trash-heap honeycombed with treacherous caverns through which a man might crash to his death hundreds of feet below the surface. Man had dug deeply into the bedrock foundations of his favorite island.

A herd of naked men and women, beards and hair waving like the yaktailed banners of some febrile Tartar horde, assailed them as they crossed what had been Broadway, hurling bits of debris and yelling in cracked ghoulish voices.

"Circle—form a circle and beat these devils off!" Tim Lanahan ordered sharply.

Lucky felt a bit of rock graze the side of his neck, then swung his club fiercely as his strength permitted at the clawing attackers. He felt it crack a head with the soggy *thock* of a rotten pumpkin, looked down and saw that the creature so suddenly kicking its life out at his feet was a woman —or the caricature of a woman.

He would have been sick had he not reminded himself that it was absolutely essential he keep down what he had on his stomach, lest he fall prey to such as these. By the time the spasm of nausea had passed the attackers were limping

or crawling away in panic, mouthing unintelligible epithets as they retreated—curses the more dreadful because of their weakness and the dreadful hunger that lay behind it.

The city was coming to life again—to a sort of life after death that was worse than death. All around them they saw or heard the signs—here a mutilated corpse, or part of one, there Belsenlike figures avoiding their comparative disciplined order—and now and again a sound, a scream or a curse, that usually faded quickly in a hoarse thin scream of anguish.

There were even worse indications. For Mankind, as usual, was disturbing the natural balance, such as it was. Renewed human activity was taking its toll of such buildings as remained, ghost buildings held erect only by the inaction within them.

A hideous rending crash from downtown resembled the approach of a thunderstorm, though the sky was clear and sunny. Pausing to seek its source, Lucky and the others of Tim's party watched in horror as what had been the Cities Service tower, third highest in Manhattan, appeared to be dropped through some immense trapdoor, finally to totter and fall sideways from vision behind the hill-covered lower buildings closer to them. The noise of the falling titan reminded Lucky of what he had read of the death-struggles of mighty dinosaurs.

But hard-headed Tim made an object lesson of the disaster. "Now maybe some of you cubes will listen when I tell you to keep out of trouble," he told them.

There were no answers.

When at last they reached the Hudson, late that afternoon, it was a relief to Lucky to be able to look upriver and

see the Palisades in all their majesty. The George Washington Bridge was gone, of course, but the barrier of the west bank of the river was changed only in the loss of tawdry apartment houses on its brink, of grimy piers at its foot.

Their progress was slow not only because of the perils of terrain and human scavengers but because, in accord with his mission, Tim and his men called a halt whenever one of them, out of his memory of the bones and nerves of the city upon which they had all worked all their lives, recalled a possible useful object.

They were the trouble-shooters—not seeking trouble but a way out of it—and if too often what they sought was destroyed or inaccessible, yet invaluable finds of lead, to which three thousand years was as nothing, and cable preserved in grease were discovered and samples taken. It had not, Tim told Lucky as they approached the camp on their return journey a day later, been an unprofitable first foray.

"If that dynamo in the Telephone Building had only come through," he moaned, "we'd have power in a month if I had to crank her myself."

"Cheer up," said Lucky. "You got those." He nodded at a pair of beryllium-bronze pliers, just about the sole surviving artifact on the island as far as they knew, which Tim had discovered in one of the perilous basements they had explored, beneath a skyscraper

Tim looked more contented. "Yeah," he said, "they'll come in useful. Now I hope Drega has some cooked food. Don't tell the boys but I got an awful bellyache."

"I'll keep mum if you will about mine," Lucky told him. From that time on the two men, so dissimilar in every way during their former lives, became friends.

IX

THEY WALKED BACK INTO CRISIS. THE COOKING PROBlems of Drega's little world were far from satisfactorily solved and bodies starved for three thousand years were demanding nourishment.

Lulu Belle, who had apparently been waiting and watching for Lucky's return, ran up to him as they topped the western ridge of the area Drega had staked out and said, "I'm so glad you're back. There's trouble."

That was immediately obvious from the way the population was milling angrily about. Nor was its source hard to find. Apparently Herb Oliver, of all people, had found a horse—a live horse. As Lucky worked his way closer, with Lulu Belle at his side and Tim and the others at his heels, he learned from the mutterings around him that most of the people wanted to kill and eat the half-starved animal. To them it was meat on the table.

But there was opposition to their craving for meat, powerful opposition focussed in a single man who, though as hungry looking as the others, yet managed somehow to project an appearence of burly power.

"I think we'll save the horse," Drega announced in an authoritative voice. "That may be the only 'horse power'

left in the world."

Muttering swelled into open defiance. Drega's chin squared. The trouble shooters had looked on the verge of defying Drega. But they bristled at the newcomers. Tim looked at Drega. Drega said, "Get the horse. Put this man out of camp if he makes trouble."

The trouble shooters raced toward the horse, unruly spirits in chase. There is no discipline for hunger. At the top of the rise the trouble shooters surrounded the dull-eyed animal. Holding a piece of rock, a burly giant came up, followed by ten times their number.

The leader stopped, breasting his heavy body close to Tim's. "Gimme that horse or I'll conk you like an egg!"

Tim's hand leaped out. Lucky thought, "There isn't enough strength in bodies yet, nor enough coordination, to knock out a brute like that!"

But Tim did not try to knock him out. He grabbed his nose with the bronze pliers, their one tool. With a merciless wrench he brought the brute to his knees. The crowd stood back uncertain, muttering. A second time Lucky felt the crisis. One of the objectors was preparing to slam Tim's wrist so that the pliers would be knocked loose.

Drega came up holding a flat club. He whanged down on the heads of the two ring leaders. The gorilla men pitched forward onto their faces. Tim and Drega grinned at each other.

But the thought of food had crystallized. The crowd did not open to let the horse through. In ugly silence the seconds passed. Again the muttering began. Lucky, Drega and Tim knew what it meant. This time there would be no leaders. The crowd would rush forward in one of those unexplainable

bursts of mob impulse.

The muttering reached a timed mumble like the tramp of feet. Lucky thought, "They'll tear Drega to pieces as well as the horse!"

A nautical voice piped up. "What's got barnacles under them lubbers?"

The crowd turned, for the voice cut the mumble with peculiar deep-sea clarity. The sailor stood there holding in his hand a three-pound flounder. The crowd was intrigued but its mind was still on the horse.

"Plenty more waiting to be picked up," the sailor told them.

Then they looked at the plump fish. The tension broke. The crowd turned back to camp. Who wanted to kill a horse when there was other food around? Besides, there wasn't enough flesh on his bony shanks to make one good chop!

So the horse was saved—the folk of Drega's camp ate fish and liked it. Afterward, most of them fell into a sort of stupefaction from overeating, but not Drega, who conversed at length with Tim Lanahan over a flickering fire about the results of the first expeditionary trip.

Nor were Lucky and Lulu Belle among the sleepers. Tired as he was, Lucky offered to take an early watch along the north border shoreline—and the erstwhile Lovelorn columnist came with him, her hair-skirt rustling softly as she moved beside him through the twilight.

"I was sure you'd been killed, Lucky," she told him softly. "I've been half-sick with worry."

"I had an idea you were more concerned with Drega since—well, since all this happened," Lucky told her.

Lulu Belle shivered though the spring evening was warm. "I was—fascinated by him. I still am," she admitted. "Any woman, especially in a time of trouble like this, feels an impulse to turn toward a man who offers protection, who shows power."

"Drega's a powerhouse, all right," said Lucky with a trace of envy. "We'd really be lost without him."

"You've changed, Lucky," said Lulu Belle, eyeing his gaunt form appraisingly. "A couple of days ago"—she paused, added, "I mean a few thousand years ago you'd have resented him and refused to see his good points. I could sense you were different when you got back."

"The old Lucky no good?" he asked her.

"It's not that—the old Lucky wasn't quite grown up."

"But you waited for him—and worried about him," Lucky reminded her.

"Call it maternal, maybe—though it wasn't just that," she said. "But it was partly that."

"Not any more though?" he asked her, moving close by her side.

"Not any more," she replied firmly.

"What about Drega now?" he asked.

"Not any more," she repeated. "I only turned toward him because I wasn't sure of your strength. Besides, what woman wants to be merely a feeder to a powerhouse? Is that good enough, Lucky?"

"Talk, talk—always talk," he said, pulling her into the circle of a still-weak arm. He felt a pang of compassion as her bones were sharp against his side. They were silent for a little while and knew their first happiness in this alien new world.

No untoward incident marred the idyll of their watch. When their relief at last showed up he said to Lucky, "Drega wants to see you when you get in."

They found him sitting beside the fire, in deep consultation with shaggy wrecks of men who had once been powers in the city and had wandered into the camp. Yet, abandoning them when Lucky appeared, he asked the ex-reporter about the trip—where they had gone, what his impression was of this or that happening, how he thought conditions stood in such of the city as he had seen.

Although he was drooping with fatigue Lucky rallied to reply as fully and clearly as he could. When he was through the financier said, "Lucky, we've got to have an agreement. You're working for me—for this community—and you should be paid.

"I haven't any money—if I had it would be worthless —but you'll get ten bucks a day for your toil, starting the day you set off. We can make our own wage scales and ten bucks a day is going to be high. Tell your—tell Lulu Belle to keep track of what I owe you. Some day you'll get paid."

To his amazement Lucky heard himself saying, "That's all right with me. What's my next assignment?"

Looking around at the sleeping forms that surrounded the fire, Lucky realized that the community had grown since he had crossed the island with Tim Lanahan's crew. The first anarchy of survival was already passing. He knew, somehow, that he was no longer to be a key figure in the community, that under Drega's aegis the survivors were reforming for rebuilding into a competitive society. And somehow he was not sorry.

He had his work, he had Lulu Belle, even now nestled

sleepily against him on the cool ground. It was going to be hard sledding, perhaps dangerous, brutal sledding, but it was going to be enough. He was going to be a cog again, but a cog aware of its importance and responsibility to its fellows, however unimportant in title.

"You're going to go out with more of the exploration gangs," Drega told him. "You're going to be my eyes until I can figure out some way to get around myself. Tomorrow Tim is going to put each of his gang in charge of a new group of trouble shooters. We're going to comb this island, from the Battery to Spuyten Duyvil—if they still exist.

"You're going to see the whole slow business of getting a wrecked civilization back on its feet," Drega went on, his eyes shining in the firelight. "You're going to be my eyes." He paused, glancing at Lulu Belle, added, "And don't worry about the girl. She's going to handle personnel problems—female—for me."

Apparently he sensed the small cloud of worry, of jealousy, within Lucky Flagherty, for he laughed and said, "Don't be jealous, boy. Your girl's all yours. I only want her brains." He paused. "I seem to have picked up an old flame." He directed his gaze across the firelight to a sleeping woman with bright red hair as long as Lulu Belle's dark tresses and with a necklace of sparkling diamonds that glittered its reflections of the fire.

"She was beautiful once," he said musingly. "And by God she's going to be beautiful again." He turned back to the reporter, chuckling at his own vehemence and said, "Don't worry about Lulu Belle. You weren't given your nickname for nothing. Now get some sleep—you're going to be plenty busy tomorrow."

Drega spoke no more than the truth. At sunrise he was up and issuing his orders for the day—and for the days to follow.

Each of the trouble shooters was put in charge of exploration gangs. Remaining ruins and buildings were to be investigated thoroughly. Food sources must be trailed down. Other people were living to the northward and before long the river would become polluted. It was vital to find out if there were available supplies of fresh water and, if not, how and where the clan could best move.

It was important to know how many people were left on the lower end of the island, for each new head meant another mouth to feed. Drega looked at new arrivals and saw how much better off his own people were. These others were still covered with dirt and patches of filthy hair. Most of them were half dead from thirst. None of them had eaten.

Drega's clan paid him a growing respect. There were other men of brains in that throng. Other names, other faces, were constantly entering the community picture—but none thought to challenge Drega's right to rule. It was the student of the clan who remarked, "Drega's greatest right to rule is that he simply took over without question."

Lucky said, "But on a basis of knowledge Drega would be your lieutenant."

The student shook his head. "No. I am still pondering what happened. Drega is a builder. Now he's building a social system. For the past two hours I am probably the only person on this ridge who has thought of that unanswered riddle."

X

FOURTEEN DAYS PASSED AND NO WORD OF HIS SECOND group of explorers, again under Tim's command, had come to Drega. But in a way this was well. The camp grew ordered. Weaker individuals had time to get bodies functioning.

Lean-tos and bricked-in caves had been built along the ridge. A very poor grade of cement was made from sand, residue, and raw, crumbled limestone. There was plenty of high-quality limestone where the oyster houses and marble buildings had stood.

But there was a difficulty. The authority who had once written a book on kilns and calcination supervised the building of a kiln. It looked swell. But somehow it didn't work.

The fish pools had been stretched for two miles, with lengthy necks reaching into the river. At high tide these necks were bottled up. Birch and some sugar maple had been found. A poor grade of clay yielded a few pots which did not leak too badly. Birch and maple tea were the camp drink, both made by steaming twigs. There was no way to boil as yet. The inferior clay pots couldn't stand it. A little

coal had been discovered, buried beneath hard packed mud. It was dug out with sticks and broken laboriously with heavy stones.

Drega's clan had grown to two thousand but increasing deaths from colds and infection threatened to reduce the number. The meager diet of fish and roots and dandelion greens was not sufficient to build up starved bodies. There had been an attempt to eat green berries which proved almost fatal. Some oysters and clams had been discovered. For the first time a bird had been caught with enough meat on its bones to eat.

No dogs had come to this camp but five cats were protected by Drega's order. An onslaught of rats had threatened the camp's very existence and not until the arrival of the cats had this menace been curbed.

At high tide, seawater was scooped into flat trenches, where it evaporated, leaving a thin coating of salt. It was a bed of particularly oozy clay had been set aside for the a vital food but their only preservative and antiseptic. A laborious task, but life depended upon it. Salt was not only treatment of open cuts and infections.

More bronze had been found and one very large deposit of oxidized silver lay open to the sun.

Among the clan were crack metal workers. But nobody knew how to work the metal without furnaces and tools and pots. It was numbing to find the number of simple processes which reached back to good quality lime and a lime kiln. Until they had those, they could not even build reasonably good molds. And the authority on lime kilns talked of blowers and motors and steel cranes. He had never built a kiln of less than ten ton capacity.

Several dogs had been killed to the northward in the woods, their hides scraped with clam-shells soaked in salt water, smoked lightly and treated with oak. A light harness had been built for the horse. Four thongs had been allocated to Lulu Belle's cooking division on which to hang fish for smoking.

All shells and fish bones were carefully cherished. Crude needles had been fashioned out of some, for use as soon as there was something to sew. Newspaper people had proved very adept at small weaving, pottery making, stringing shrubs and roots into short lengths of rope. Edible herbs had been found in small quantity, and a bronze and two plastic pestles had been found. A large block of marble limestone had been scooped out with sand and hard rock and supplied a mortar.

The most important functions in camp concerned food. A series of brick ovens had proved failures, due to poor cement more than anything else. But a dugout chimney with a shelf supplied baked items. Roasting was possible on a stick, steaming could be accomplished in clay pots.

All of this had taken an immense amount of work for weak people without tools. Some wooden tools such as clubs, fish spears, poles and two shovels had been fashioned out of fire-hardened wood. But this required much time and a great waste of fuel. Much of the wood at hand was green and would burn only on very hot fires.

For further progress three things were vitally needed—lifting power, transportation and common sense. Drega had sent his most practical men out on Tim's survey. The few others had their time occupied with the details of everyday life.

Drega was thinking of these things when a cry went up from the outpost. An amazing sight broke out of the forest —two of Tim's men, Marillo and Turpine, astride an elephant! Held in the elephant's trunk was a large bronze door. Behind them came a second elephant, limping, also bearing a bronze door. Both men were weak and sick, Marillo with his arm in a sling of skin, Turpine banged up all over.

Turpine grinned and handed down two large pots, their tops covered with a hard crust. They also had with them an assortment of objects, invaluable to the clan. Three bronze knives, a bronze scythe and four hard porcelain pots. A bronze spear, two extremely hard plastic molds for cooking pans, two empty pots of some clay substance and two wrought-iron wheels. On the second elephant were piled skins, one filled with gold trinkets and plate, a second with rock-hard beeswax, a third holding a dried-up gob of tar and others stuffed with fresh meat.

"*And!*"—Marillo grinned, handing down fifteen bronze fishhooks and a length of real fishline.

"All from the Museum of Natural History," Turpine explained. "Just to make sure nobody else got in we shoved a few tons of stone back over the entrance."

Drega asked for their report.

Their first adventure had come as they left the woods immediately north. Llewellyn, a miner, used to working amid gas and slides, had stopped and counted heads. They were a man short, Randolph, their civil engineer, was missing. They had found him fallen into a deep hole beneath a tree. His leg was broken.

"We couldn't reach him," Marillo said grimly. "He was down ninety feet and the sides were too steep to climb.

There was nothing to make a rope of. We could see him in the light of flares we let down on thin vines. We had to sleep there that night, listening to his groans and not able to do a thing about it."

At a conference next day they had decided to push on. It was a hard but necessary decision to make.

North of the woods the city was in complete ruins. There were many signs of buildings, but most of them had long since tumbled on themselves, and grassy and wooded hills had formed over their skeletons.

Atop a very high hill, Tim had laughed sharply without humor. "I think this is Tudor City." After a moment he added. "I had a brother who lived here."

They wondered if, down in those depths of earth and debris, people might still be living. It was not impossible. "Seeds" had wandered into camp to tell of being on the sixteenth story of a skyscraper at three-thirty on March fifteenth. The next thing he knew he was climbing out of a hole midway up a hill.

No words could explain the utter desolation of what had been 42nd Street. It was leveled and piled into sullen featureless hills. There were shrubs and trees in spots but most of the country was dead with the deadness of raw earth when topsoil is sheared away. There had been explosions underground. A few thin columns of smoke wove upward from deposits of burning material.

A woman's voice had shrieked at them from a pile that must have been the Brinton Tower. Lucky had found her, a former society beauty, hideous with privations and trapped behind a large block of granite.

"I want to tell you exactly what happened," Marillo

said with a hard face, "because it shows what we're up against. The woman was scared we'd leave without getting her out. She didn't get the drift of things yet. She offered us a million dollars to get her out!"

The men could hear her sobbing inside. Her hand came through the hole and held out a diamond the size of a half dollar.

Michael, the mineralogist, had gasped, "The Rockland diamond!" Story, a tool dresser, muttered, "That would make a thousand diamond drills!"

Einstein, the junk man, stood goggle-eyed repeating, "Ooh, ha!" at intervals.

Llewellyn had been inspecting the hill and suddenly announced that it wasn't safe to attempt the woman's rescue. "There's about forty tons sitting right above the keystone," he told them. "And all that's holding it there is a little lime-stone and balance. If you move that granite block to get her out you're going to cut out the footing you're working on."

Michael had disagreed. Llewllyn had tried heatedly to explain but he couldn't. It was something a miner simply *knew* without knowing how he knew. He had cursed and refused to be one of the rescue party.

They had located some uprooted and burned-down logs and set to work to swivel the big granite keystone. Lucky Flagherty had squatted on another block beside the hole holding the woman's hand. Three times while they heaved Llewellyn had started to join them, then had gone back swearing bloody murder. But he couldn't listen to his own advice. He came and stood near by.

Another foot on the pry log would give a big enough opening. Not a suspicious tremble or warning of danger

had been felt. But suddenly Llewellyn shouted, "*She's going out!*"

In the fraction of that second the big stone spun like a top. The pry men were catapulted onto their faces. Lucky jerked the woman through the hole. Forty tons resting atop the keystone crashed through some thin flooring beneath. It carried the footing out from under eighteen men. They dropped without a cry into the gaping hole beneath.

The woman had flown clear of Lucky's sudden jerk but Llewellyn had caught her. She hung by one foot over the black hole. Llewellyn's stone was slipping. He tossed the woman to Tim and jumped clear as it crashed beneath.

Something very hard had happened inside Tim in that brief instant. He said grimly, "Four prime men and eighteen good ones gone—for what? A woman!"

There would be no more rescue work attempted.

Llewellyn had mumbled for hours after, "If I'd thought there was a chance—but I knew, see? *I knew!*"

They listened to his advice after that.

They had discovered a large body of men, their leader a friend of Tim's, trapped in the tunnels of the old Grand Central Station district. They had not been able to get them out for fear of bringing down treacherous ruins above. With a few tools they could have released the people.

Wherever there had been great buildings were hills punctured with natural limestone caves. In a spot which must have been the old Commodore kitchen Einstein's junkman's eye had detected a glitter. They had found an aluminum pan coated with emerald crystals. It was also Einstein who discovered a large copper frying pan, one of the heavy kind, large enough to cook a hundred eggs at once. It had

been heavily coated with grease and was in almost perfect condition.

In this part of town they had seen a wild savage horde of men pursue five helpless men and women and rip them limb from limb—and *eat the flesh raw!*

"Good God!" Drega uttered.

"Wait," Marillo answered and his lips trembled. "You people down here were eating. Our food ran out and except for birch tea made in a pyrex dish Tim found, we had nothing for many days. We had to pause five days by the old library to wash our feet and legs and let them heal."

The terrible food demands of bodies which had lived upon themselves for three thousand years attacked the men. Tim turned south to locate the old warehouses but most of the party went northward toward the park. Lucky had made friends with a gigantic sheep dog. It suddenly ran ahead of them and stood stiff and growling. It was fortunate it warned them. A band three times their size swooped around a hill brandishing clubs.

Tim had found a sheet of lead earlier and they had worked the molten metal into cracks and crevices in their own clubs. They were better armed. Yet they would have lost the battle had not Turpine, the circus roustabout, started them running up a hill as if defeated.

The enemy followed, with savage hunger and murder in their roars. Turpine tripped them with a stick, sprawling them into a deep pit where they split open on sharp rocks.

Exhausted from the fight they had slept amidst the dead that night. Lucky's dog fed upon an enemy body. Nobody stopped him. He did not touch any of their own dead. During the night there was much stealthy movement. But not

once did the dog bark. The next morning, six enemy bodies had disappeared.

"And the dog didn't bark?" Drega asked.

Marillo's face was like iron. "No." He looked straight into Drega's eyes and the two men understood one another. No reference was ever made to that incident again.

"We had lost half of our remaining party," Marillo continued, "and pushed on for the park. We saw a dozen bands, numbering around ten thousand altogether. They were fighting each other for the right to kill the loose animals but as soon as a man would go down, other men would leap upon him with insane hunger. None of the bands could kill the animals. They were unarmed. The elephants alone must have slaughtered a thousand men and women when they went on a blood-rampage.

"There were four elephants and Turpine recognized one. He had been its keeper. He finally calmed it down. By luck it was the leader."

He told about charging the lions and tigers, the elephants stamping them dead. The bears had not been so easy, and they had lost Stokes when he tumbled down among them. They thought of possible old weapons and went to the museum to investigate. One elephant got bogged down in a swamp and they had to desert it.

The old museum was an immense mound but there were openings beneath great blocks of stone and it had been no trick for the elephants to pull the stones free. For two days they had searched for an entrance but found only dirt and rubble. On the third day they pulled aside a gigantic slab and found a vaulted room almost undisturbed by time. It had been one of the Egyptian display rooms.

"We had a number of spears and swords but we went back to kill the other animals," Turbine said. "The hyenas, jackals, bears, and wolves were still around. I'll bet there are a couple of camels they won't kill for a long time either. We used most of the weapons killing what we got. Some of them broke and some we dropped. We didn't dare to go after them because of the bands of people."

"We've had some bad skirmishes here," said Drega. "That's why we don't dare go far from camp."

"It's a regular battlefield of cannibals uptown. Everybody kills and eats anything they can get."

XI

AFTER SKINNING ENOUGH ANIMALS TO HOLD THE OTHER carcasses, they had stolen across town through thick brush in the dead of night. They headed down the river bank, charging crowds mercilessly. A band had followed and they had had to turn and fight. They lost nine of their remaining party. Lucky and Carter had taken a chance and headed uptown to the old university section before that.

"We lost another elephant, the one with most of the meat, yesterday. She dropped through into a cavern. We spent the day trying to figure a way to get her out—at least to get the meat out. But she'd busted a leg and was kicking. It wasn't safe to go down. We can go back after the meat and her hide and flesh."

That night Drega's band ate meat stew for the first time in three thousand years. The meat was tough and probably impure. But the animals had had two weeks to feed up and were not as stringy as they might have been.

Late that night Llewellyn staggered in, bloody and half dead. He had fought his way clear of the last skirmish but the men aboard the elephants were already trampling

through the crowd and he couldn't reach them.

Next day the camp went back to where the elephant had fallen through. The elephant was still alive. It was a problem how to kill an elephant.

Drega said, "Find the heavest block of stone you can."

Without the elephants, finding such a block might have involved considerable search. But Turpine simply rode the lead cow around, lifting up rubble. He found a tremendous square block and had the two elephants roll it across the space. It was about sixty feet to the bottom of the pit. When the block struck, the elephant died without a sound.

It took five days for men working with bronze tools and burning brands to get the flesh of the beast worked off. There was no way to cut off feet, and the ponderous head delayed things further. The crew were worn out and pessimistic. There were demands of why they should slave at Drega's bidding.

Drega snapped, "So that you can eat!"

He ordered vine and skin ropes brought, and himself got into the pit to supervise. It was a simple trick for the elephants on the surface to strip the flesh from their sister's bones.

The flesh was succulent and healthy. The pachyderms had spent two weeks gorging on luscious vegetation in the park. The skin alone was worth a fortune under new values. From those bones, in time, came not only soup but some of the new civilization's most valuable tools.

When they returned to camp they found Tim there, sleeping with complete exhaustion. His feet were swollen dangerously but he had hauled, somehow, a length of cable and two coils of lead wire he had found immersed in pitch.

With him was one remaining man and the woman they had rescued. Six men had been lost getting into the ruins of the warehouse. Yet these two had not lost the aluminum and copper pan, the lead, the bronze bust and the three blueberry plants they had found! As if proud of such grim determination the plants lived to flourish.

The next day Lucky, Carter and the dog arrived. They were worn and spent and great sores covered their bodies. But each carried a large woven root-hamper filled with small round cylinders of rust.

"Old cans?" Drega asked. "Amazing!" He recalled a tin-plating process which Simon Gamble had worked out.

"Food!" exclaimed Lucky. "It may be poison but we've lived on it for ten days! Canned beans!"

Except for small punctures the copper pan was perfect beneath a crusty coat. The punctures were imperfectly mended with bits of lead, after the coating and ancient hardened grease—itself almost as hard as the copper—had been scoured off. It was the only utensil in which they could melt the lean animal fat from Turpine's kills.

The bands to the north were growing more daring and increased precautions had to be taken against attack. Nobody could imagine what the northerners were existing on but they grew in numbers daily.

Lucky reported a large clan of college students and teachers living near the Columbia University, parts of which were in comparatively good condition but deeply buried in places by many feet of accumulated dirt. The buildings that had resisted time were those of old-fashioned masonry.

There were groves of woods and herb swamps near the university. The clan there was living well on a vegetarian

diet. They had some tools and more utensils than Drega's clan, which they had combed out of the university ruins.

From the university north and south and east, mankind had degenerated into savagery of the lowest order. The Bronx River had widened and the city lifted considerably at that point. It was now a river of vicious currents, impossible to traverse.

Groups had tried, with crudely constructed cable rafts, to get across the East and North Rivers. The clumsy crafts had been ripped apart like boxwood in midstream. There was a long line of whirlpools where old bridges had crossed the East River. There was a tremendous suck-hole where the upper tunnel had existed under the North River.

Drega was considering possible moves for his clan. "What about Central Park? Our strength is sufficient to conquer the territory."

It was sailor who advised against it. "You've got most of the animals and there'd be no fish in any quantity that far up the river. You'd have to keep a fish camp down here."

Drega said, "It would divide our forces. Tim, What's in this part of the city?"

"Everything that's left," Tim said, "Including people. Thousands are trapped underground. What they're living on I don't know. But they've all got fire from explosions and most of them seem to have water and something to burn."

He had traveled rapidly after leaving the others. For a long stretch he had seen little evidence of anything useful other than one section of granite blocks. About opposite their own camp he had discovered a goodly sized sweet-water river gushing from the ground. There was plenty of

good grass over there and a grove of straight timber. Many trees had been torn up by their roots and lay drying.

The city in between was undermined with caves and passages of two types. One, the remains of old cellars and subways. The other, natural formations, which had arched over streets when buildings tumbled, or natural growth of rock from the debris of old buildings. It was a highly dangerous country, with firm-looking turf growing over deep holes.

"There are plenty of warehouses," Tim said. "All ruins and most of them look like hills. But I think there's good material in them. They'll have to be mined—just like drifting a tunnel through loose rubble. Two hills covered with old trees fell in while we watched.

"The telephone warehouse is the best bet. There was a lot of tar and pitch and oil and wax in there. The next block was a power station with four large transformers. There must be plenty of metal and wire protected. Those transformers are sunk in oil and covered by thickly enamelled armatures. The armatures are shot but the transformers should be solid metal if we can get them out of the oil."

"Why can't we?" asked Drega.

Tim gave a pessimistic blow. "That oil's hard as rock. We'd need picks. We need iron to work with. And there's no iron to use in the city. Unless we can find some way to smelt rust and get ore that's grown through old stone. But even before we get it, we've got to have lifting power to clear the way."

"We've got the elephants," Lucky pointed out.

Turpine had not joined in the conversation, still regarding his position in life as that of a roustabout. In the flood

of suggestions from artisans, technicians and businessmen he might have been overlooked. It was Drega who spotted his desire to speak.

Turpine said, "I wouldn't want to take the elephants back even the way we came. What you're talking about sounds like worse country than that."

Drega nodded. "We've got to have immediate supplies to assure daily existence. Our pools are running shy. We need cooking utensils. We must have tools. In the meantime the clans up north are getting bolder and more savage. And we need to break through and rescue Tim's friends."

"I thought rescue was out," Prescott interposed.

Drega said, "It is—under ordinary circumstances. But those men are technicians and know what's left below ground in this part of town. Carter, how about transportation?"

"I agree with Turpine. We can't afford to lose another elephant. We need a safe road across the island."

"To build a road we have to be safe from attack." Drega was silent with deep thought. He nodded to himself. The clan waited to hear their fate decided.

"We'll build a wall straight across," Drega decided. "Steep on the north side. We'll use the wall for a road. It'll be tough work. We will be fighting against time. We need fish-nets urgently. We can make them with pitch and vine and wire but we need something to boil fish in."

Always, for the next three months, immediate problems came back to the lack of iron and lime.

A small expedition including Marillo, Tim and Lle-

wellyn made a northward dash under cover of night to rescue Steve, Tim's trapped friend. Twice they nearly stumbled into savage camps. Once they had to beat off a pack of dogs.

It was the horse and cable—Drega's foresight—which made the rescue work possible. Drega, ever thinking in terms of construction, had his camp fashion wedges and poles, short beams and scoop shovels by burning and fire-hardening available wood. It was unsafe to trust stone for support work. It had a way of crumbling even if it looked sound.

No answer came from Steve but the men drove ahead under Llewellyn's direction. If any had felt he lacked liver, they no longer thought so. They saw him working in his element—sure, careful, willing to risk falling tons so long as there was one chance in fifty of surviving. Three times he missed being crushed by inches.

The widening of the hole was a tremendous task. Nineteen times they dug away loose shale and rubble and growing stone. Nineteen times they had the hole almost large enough to wriggle through.

And nineteen times some infinitesimal vibration knocked loose a rock and the roof pounded down to fill the hole.

The twentieth time they were successful. For eighty feet they wriggled through a natural tunnel barely large enough to clear. Every inch brought a rain of roof and walls about them, and they realized the great difficulty which had thwarted Steve's men, trying to tunnel out from the inside.

They paused at the tunnel end to breathe their torch. They were in an immense cavern, great streaks of rust shooting across walls and ceiling and growing in strangely

shaped clusters and stalacites. The cavern was filled with colored formations, most of them like dull raw ores.

The floor of the cavern was lined with ridges and projections. But corners were softened as if considerable amounts of water had drained through the roof, filling in crevices with fine sand and wearing down sharp surfaces.

Llewellyn led the way with instinctive knowledge of dangerous slides and pitfalls under foot. He kept stopping to examine walls and ceiling, his technical interest aroused in the artificially created caverns and formations.

"Anything worth while?" Tim asked, finally.

"Plenty," Llewellyn nodded. "Iron and coal drifts, and some small veins that look like aluminum and dura metals. Must have crushed into the rubble and crawled."

"Crawled?" asked Marillo, doubtfully.

"Sure. Metal likes its own company. There's plenty of copper in spots. And here's some stuff that looks like hardened pitch."

Tim scraped the surface with his bronze knife. "Tar," he grunted. "Considerable quantity of it."

Marillo said, "All we got to do with a lot of this rubble is toss it into a vat and break it down." He paused and scratched his head. "Only where we going to get the vat?"

"Hot dog!" Llewellyn yelled. He held his flare up to a mottled spot, tinged with green and brown. "Lead! A solid nugget as big as a boxcar!"

"We're in the old switch tunnels," Tim decided. "My gang wired 'em. There's probably just about an orecar of lead there." He was picking a long thin streak in the surface of one wall. "Plenty of cable left in here too."

Llewellyn suddenly hissed, "Shut up!" He stood listen-

ing intently. They heard the barest rumble from a great distance. Llewellyn glanced quickly at the walls and roof and darted toward the opposite wall. The floor began to shake. It felt as if it crawled beneath their feet. Llewellyn warned, "Stand back here."

They were under a particularly jagged section of the roof, the type any of the others would have avoided. They waited an interminable ten minutes. Suddenly the wall beside which they had stood bulged out. For a minute it spewed dust and small rock, then stopped.

"Okay," Llewellyn grinned. He gestured toward a granite corner projecting from the ceiling. "That's probably holding all Park Avenue up."

The tunnel broadened so that they could not distinguish its edges. Rats became more profuse, and in the distance they saw fires burning. They approached cautiously, hiding their own torches and feeling their way ahead. They were studying a group of naked men and women around a fire when stout hands caught them from behind. Without ceremony they were thumped on the head and dragged.

Tim came to looking up into Steve's thin but grinning face. "So you came back and got through!" Steve was trying to laugh off the emotion in his voice. "Well, you old tunnel rat, I thought maybe seeing you again was a nightmare!"

Tim suddenly sniffed and said, "Food! Real food!"

XII

"WE'VE GOT PLENTY OF FOOD," STEVE SAID. "ONLY trouble, it's about half poison."

Tim ate a dinner he never forgot. Jerked beef—tough but good—Eggs, corn-meal mush, honey, a kind of bean cake and hot chocolate sweetened with maple sugar.

"How come?" Tim asked unbelievingly. "Are there stores of this stuff left?"

"Only maple sugar. This supply was a freak. I knew there was a trainload of specially cased food around here. It was for some polar expedition to take and bury for test purposes."

"But even then—" Tim began.

"Well, it was all carefully dried and packed in vacuum. This was copper and lead covered and over that was a large sheet of heavier lead. And that was covered with a blanket of tar."

Steve went on grimly. "We'd given up hope of getting out of here. We had a fire—some of this solid material burns—and plenty of water. But we'd gotten down to eating rats. Then things got worse."

"Each other?" Tim asked softly.

Steve nodded, his face strained. "Our number had grown to about four thousand. A lot of them were God knows what. They didn't even know how they got here. Some of them were pretty tough and every few hours somebody—began to disappear.

"We didn't know who to knock off for law and order, because nearly everyone of us was at the point where we were thinking of each other as food. Just about then we located this train. Or what we located was the food that had been in the train. It was buried solid in walls and floor."

He sucked on a piece of almost-black substance as hard as rock—maple sugar.

"We couldn't locate enough to keep four thousand people alive more than a week. But we had a—lucky break." Steve laughed harshly, softly. "The first meat we found was rock but after it was soaked, and boiled it looked good. Only it wasn't. About three thousand people died in three days."

"That was luck, all right," Tim agreed with hard irony.

"We just dumped them down a bottomless pit and moved our supplies to another tunnel."

"How about boiling?"

"All fixed for us. There were fires burning down here somehow. Every once in a while one of them breaks loose underneath us. We found a place where some water was boiling in a hollow. There was a short tunnel under it, all afire."

"I don't understand the egg, though," Tim said. "Like Chinese buried eggs?"

"Powder," Steve smiled. "Egg powder. I guess it would

keep forever. We're almost out of it."

For a day Tim's gang rested. Then the clan, numbering now around eight hundred, followed Llewellyn back out. They had found a big deposit of mixed coal and oil and tar which had been crushed together long ago. They had mined a considerable quantity loose with fire-blasting. Each person took a chunk of this to carry back to Drega's. They carried the rest of their food supply and some stone containers they had fashioned to keep themselves occupied.

Later this supply of fuel was to save Drega's civilization. It burned into clinkers and produced a high heat. It was the only fuel Drega's people were to know for a long time with which they could melt bronze and run it through cinders into channels and moulds beneath.

Drega had thrown his entire camp into the duties of food and wood gathering, wood burning to make tools and building the wall. "We might flounder around trying to do this and that and get caught by winter. Let's go at this problem as we can, without worrying about the things we are not doing."

Once already they had had to fight off a large horde from the north and their casualties had been heavy. The elephants had saved the day.

More valuable than manpower, the elephants were not allowed to tread over a foot of ground until the March Detail had tested it before them. This detail consisted of four hundred heavy men, already trained to march with a heavy goose-step in perfect rhythm.

Drums had been fashioned out of hollow logs and skins from seals Lucky had discovered. Each morning they marched heavily back and forth over the territory the ele-

phants would cover that day. Eight times the ground had given way beneath their tread. Thirty of their ranks had died. A hundred and more were on the sick or injured list.

It was a heavy price. But daily the elephants heaved great blocks of stone and logs into place. The solid barrier rampart was pushed ahead. Behind the elephants men and women worked to exhaustion, filling in and piling smaller rocks. Wooden scoops and shovels were used for dirt work.

At the outset Drega had stated, "We need good cement," and called a former cement manufacturer into conference. But with no supplies at hand the man was defeated.

"I thought you were the biggest cement man in the world," Prescott growled.

"I am—at least I was," the man said, bewildered. "But we made our product by the thousands of tons. We imported raw materials from twenty States. There's not even lime here! The kilns won't work."

"No lime?" roared Drega. What, he wondered, were all these former experts good for? "Well, I can't make a kiln work either, but I can damned well get lime of some sort!"

He had a large clay pot baked, a vessel with a hole in one side. A crude bellows with a flap intake was made from a sealskin. This was made fast to the hole and a fire built in the bottom of the pot. Large stones were placed in the fire to give a kind of grating and limestone was laid across the rocks. In forty-eight hours he was getting chunk lime.

Drega ordered the lime pulverized after that. It was done at tremendous effort by men and women using rocks in smashing pits. It was mixed with sand and carried dry on pole trays covered with clay.

If streams, backwaters, springs or potholes were handy

it was wetted laboriously from containers made of clay and brush or by ditch. Birch bark was too precious to be used for heavy work. If no water was available it was left dry and the clan prayed for a very light rainfall.

So the summer passed with men and women wearing themselves to the bone to maintain the necessary daily food supply—fighting off the fierce clans from the north—building the great wall and road so that it would be finished by winter—and making crude tools from wood.

There was little time for further exploration or metal working. Only one gang could be spared to bring cable across the island and the cable was urgently needed for harness and lifting and fish nets. Only three women could be spared to melt and peel the tar covering the cable. It was a dangerous and laborious task, the only melting pit a natural rock formation which resisted heat fairly well and beneath which huge fires were built.

The greatest find of those months was when the elephants tugged a huge block aside and exposed an old elevator cable almost perfect beneath its heavy coating of grease. But it was dry and stiff and required three weeks to fire it back to life.

Oddly it was the need for money which gave birth to a feeble metallurgical industry. Sailor began to demand his wages. "It ain't that I don't trust you," he said to Drega, "but you got so many people on your payroll I don't see how you can remember all you owe me. I want something says you owe me so much."

Drega smiled appreciatively. There were crack metallurgists among the clan. Many jewel and metal workers had been in that district. But experiments to work metal had not

proved successful. Lead they had melted much earlier—at a terrific cost of fuel and loss of metal.

But money was even more important than tools. Money was morale—the thing which kept the grumbling, surly and bad-humored tribe fighting their way through. And tempers were getting sharper as food became more limited. The only bright outlook was the hope of early berries and summer roots.

Drega called a conference of pitman and metal workers. They had just discovered the intense heat of the fuel brought by Steve's clan. The cement men were called in. They had learned where certain beds of lime, better lime, and sand existed. The outcome was an open-fire pit, crossed midway down by blocks of granite. Beneath the blocks narrow tunnels opened into the pit. The tunnels opened at their other extremities giving some draft. A large bellows was made from the elephant hide. At the very bottom of the pit a channel was made of clay. This channel led to molds of hardened sand carefully packed by hand, then wetted and dried with fresh water for several days.

The channel and the molds nearly drove the metal workers to distraction. Even the copper man shook his head hopelessly at the channel and the forms.

"What's wrong with them?" Drega wanted to know.

"Well, for one thing, when the molten lead hits that lime it's going to raise hell."

"Then we can use plain sand at the pit."

"We can't find any. No molder's sand. That's better than the sand around here. But when the metal gets out to those forms the sand's still no good. It's full of dirt and minerals and it's going to work in with the metal."

They tried the experiment anyway. The fuel was piled upon the granite stones. Hunks and sheets of lead were laid atop these. The fuel was fired, the bellows worked. The lead melted and dropped, working through the hard cinders. In the pit the lime sputtered and bubbled and filled the metal with gas. The clay channel cracked. In the molds the impure sand worked as the metal workers had predicted.

Had there been an old-fashioned blacksmith in the clan he could have saved the situation. All these men were experts, artisans knowing only one branch of their trade and used to working with the finest industrial materials and tools.

But the lead cooled and Drega had tokens to give out for pay.

XIII

THE TOKENS WERE PITTED. MANY OF THEM WERE cracked and filled with foreign matter. But they were *money!* For a few weeks tension eased. People had something negotiable with which to barter and gamble.

Then too, money was a whip to hold over the heads of shirkers and the lazy. A scale of wages was now worked out on a much closer basis than before. The matter of a few cents' difference in actual lead money made a sharper impression on wage earners than a matter of dollars in promises before.

The great wall across the island was finished on the first cold day. But it was a weather freak and there followed two weeks of wonderful Indian Summer, during which the clan rested. There were berries and herbs in quantity and a semblance of crude alcohol was concocted by fermentation.

The tough grasses of the lower island had grown long and the women set about braiding and weaving skirts and brassieres. Their hair had grown during the months and the hard work had given lithe lines to their rounded bodies. With a rest they were a handsome lot, including many of

the best-looking secretaries from the former Wall Street district. For the first time men paid them serious attention.

It was Turpine who brought sharply into focus the additional work to be done. "I've got to have a solid warm cave for my elephants for winter," he informed Drega, "and a lot of hay. They're no shaggy mammoths."

Drega looked over their cutting utensils, the bronze knives and scythe and a few sharp stones. They had not been able to do anything with the bronze as yet. The metal was now melted in the clay-pot lime kiln. A small pot was placed inside, with a lead-off for the molten metal. Clay molds were tried and worked reasonably well. Blunt instruments were then sharpened by honing.

Drega called the clan out to cut hay for the elephants and to build winter hovels along the inner edge of the wall, both for protection from the enemy and from the winter winds which would sweep the ridge.

The clan did not respond with enthusiasm. There was a great weariness. For the first time they were enjoying leisure and good weather. A few caches of canned goods had been discovered. About one can in twenty was safe to eat. They could tell when they smashed one on a rock. If it exploded, then it was poison. Otherwise their systems seemed to manage it.

Drega called out his faithfuls. Largely they were workers from the building and maintenance trades but there was a scattering of artisans and technicians who worked with their hands. Drega had a fundamental respect for people who could make things. This group policed the camp, driving people to work, at first by coaxing, then shortly by physical dominance, for the mass grew surly and hard to handle.

"So you've become a dictator again?" Lucky said to Drega.

Drega sighed wearily, "It's no pleasure." He went off personally to help in the construction of the elephant quarters, for the building must contain three chimneys and a broad roof with no cracks.

The clan irked under Drega's drive. When the winter housing was finished, still he drove them on to exploration, to clear the old warehouse across the island, to salt and smoke fish. They began to turn against him.

It was in a September chill that Drega called them together and said, "I cannot hold this from you any longer. We have no food for winter. We have been going into our preserved stores. We are almost out of food now.

"In five days we have caught only three hundred and sixty fish and crabs in nets and pools combined. The situation is serious. We must crack some of the warehouses and hope to heaven they still hold some edible food—or starve!"

"There are still the elephants!" somebody in the crowd growled.

Mass bitterness at their condition turned against the elephants. With a sudden roar the crowd swept toward the elephant house. Leading his small bodyguard Drega raced along the wall to head them off. He won through to the house by yards. A bitter club fight ensued. Nine people fell to the metal-tipped cudgels of Drega's men.

Day by day the bitterness against Drega grew deeper in the rank and file. There was muttering around the fires at night. Men who should have been working began to fashion themselves fighting weapons of hardened wood and stone and what metal they could steal from Drega's stores.

It was at this time that Drega told Lucky, "I've worked out a real lime kiln! That idiot who used to write about them forgot the chimney slope and his pit was shallow."

"Does that save us?" Lucky asked.

Drega said, "If we can find a way to work iron it would keep them busy through the winter. We might pull through, because with lime we could make the houses warmer and fires hotter. And with iron, even the crudest implements, we could get into those warehouse hills."

"I thought Man made iron very early," said Lucky. "Why haven't we been smelting ore?"

Drega gave him a sardonic look. "Because we have no blast furnace! We've got the foremost metallurgist in the country and three crack furnace-men. But they don't know how to work ore without a blast furnace and dolemite! Lord deliver me from civilization." He took a piece of dried fish off a crude silver dish and crushed it savagely between strong teeth.

Tim came up, two of his men holding a surly clansman between them. Once he had been a leading importer. "Broaching stores," Tim reported succinctly.

"What kind?"

Tim wet his lips. "About sixty pounds of dried fish."

Drega got up and walked around morosely while the council was called. The discussion was short. There could be no alternative with winter this close. It was death—or its equivalent. The man was dropped over the wall, left to the mercy of the prowling cannibal clans.

But the sentence was not approved by the clan. Many fomenting spirits had eaten of those stolen stores. Others had been planning on the same thing. For many days now

the rations had become shorter and shorter and their stomachs were empty.

Toward the end of October the clan revolted against Drega's enforced command to work. The week had been one of broken heads, of flogged bodies, of heavy financial fines, of fines in the way of withheld meals. It was the money penalties on which their bitterness settled. Oddly enough they planned to kill the man who stood behind the money. Without Drega it was worthless.

In the dark of midnight a large body crept upon his hovel. They passed Lucky's and he was awakened by his dog's growling. From the muttering and the stealth of the band, he knew what was afoot.

It was possible to reach Drega's from his place over the brow of the ridge, out of sight of the plotters. Madly Lucky raced to give warning. The mob had stopped to reassure itself of its hatred, for all knew that taking Drega would not be easy. His house was placed for strategic command and the houses of his trusted men surrounded him.

Lucky rushed in Drega's back door and panted the warning. Drega leaped from his bed of branches slamming a heavy silver mallet upon a small bronze ring. In the dark of the night its clear voice rang out, telling of danger to the clan.

Drega's bodyguard rushed from their sleep. But they were outnumbered and forced up the wall. It was a terrible and lengthy riot that night, with many who might have assisted Drega uncertain what to do behind the ranks of the insurrectionists.

During the frenzy of battle someone broke into the one well-made house except the elephant stable—the food supply

house. News spread through the mob. Defeated by the organized army of loyal men, it broke and tumbled through the supply house grabbing food.

There was no way for the smaller body of men to investigate in the dark of the night. Until dawn they huddled around Drega's, expecting a fresh attack every minute, their eyes glued to the fires springing up at the far end of the camp.

At dawn they went through the wrecked supply house. Not a bit of food was left. The clansmen had gorged themselves as only starved people, worked to the bone an entire summer, could gorge. They lay in heavy slumber around the charred embers of their fires. They awakened as if they had been drunk, hysteria gone, their wits dull, many not knowing why they had attacked Drega the night before. They were not sorry. They simply did not understand their own actions.

That day the fish pools petered out and the nets brought almost no catch. Possibly the fish had been fished out or simply grown wary of that shoreline. Within a few days the clan was famished and ugly again. But they would not risk another attack on Drega. They came up in the light of day, demanding to know what he would do with them that winter. The story had spread that he had vast stores of food beneath his house.

"There is nothing I can do," Drega said simply. "We have not even sufficient food for an expedition out beyond the wall."

This was true but he partly spoke for effect. Drega believed in his destiny. Somehow he would find a way to take care of his obstreperous clan. But he wanted them to get a

good lesson, for the winter would be severe. He did not mind the muttering and hatred of the moment. They would get over that—when they got hungry enough. Well he knew the way of mobs.

And at that moment there was a throbbing in the air. They looked toward the river. A large motor boat turned in toward shore!

XIV

WHITE-HAIRED AND FORCEFUL, SIMON GAMBLE LEAPED ashore. Without hesitation, he walked up to Drega, his boots holding chief regard of the clansmen.

Drega smiled cynically. "So it was you, Gamble? I thought so. Your great hobby was always suspended animation. But why so long?"

Gamble colored slightly. "We had our own place to order first—food to grow."

He smoked a cigarette. The pungent smoke drew the clan into one mind encompassed by memory of—yesterday.

"It took you eight months," Drega noted. "That's a long time in your world, Gamble. It isn't possible you intended suspended animation for, say, a hundred years—and something went out of whack?"

Gamble said abruptly, "That's neither here nor there!" He flicked a glance over the naked horde, his mind classifying them in various conditions of health and disease and malnutrition. "You haven't done badly," he admitted grudgingly. "We'll send down clothing and get things back in order."

"Thanks," Drega said. His lips were curled in a peculiar smile. Gamble's assistants were tossing small boxes ashore—sweet chocolate, cigarettes, malted milk, things a starved people craved more than real food.

"I suppose you're ready to admit the error of the old economic system now?" Gamble asked. "You've had time enough without your gold. Or did you find some?"

"No, we didn't look for it," Drega said. "But what particular error of the many you deplored in the old system do you wish me to admit?"

Gamble snorted. "Money—corporations—ownership—war—inefficiency—compromise."

"I don't think they were errors." Drega's tone hardened. "We may not look like much, Gamble, but little pieces of lead money built this wall! And this wall is the difference between us and savage cannibals."

Gamble's eyes hardened perceptibly. "You haven't changed, Drega. I thought this might be a lesson. You still want power to run things, to own people."

Drega said softly, "And you?"

"I want to give them science," Gamble roared. "Science and your kind of money can't get along in the same world."

"Then there's no room for us in your world, Gamble."

Gamble's lips curled. He had caught the slight hesitation on the word *us*. He turned to the people. They gave him a joyous cheer through mouths full of chocolate and from lungs choking by their first cigarettes since the awakening.

Passionately, he gave them a picture of the world science could create for them—corn as high as their wall five days after planting. Clothing in such quantity they could

throw it into refabrication machines when it grew shoddy. Cars and private baths for every member of the family, luxuries for all and poverty for none. It was a beautiful picture. It left them silent and stunned.

"It will take a little time," Gamble said. "But not long. There is only one condition. You *all* work and *there is no money*—at least money of the kind you know. In return you get everything you can wish for. There will be no need for money!"

A cheer rose and fell dead into stunned silence. There could be no doubt Gamble spoke at least some truth. A look at his shining boots—and the presents he had brought proved it. Even the bolts of fabricated silks and woolens!

"Mr. Drega," Gamble went on, "does not agree with my views. He will probably wish to withdraw from any part of them."

If Gamble had expected Drega to capitulate he was disappointed. Drega was white but firm. He said to his people, "A world cannot exist without money! There must be trade."

His clan was silent.

Gamble said, "You only trade for what you do not have. But you will have everything. You will have a hot dinner cooked as you used to know it—tonight!"

That clinched it! A mighty cheer went up and echoed! The people burst into a frenzy of dancing, yelling, and crying.

Drega shouted through the din at Gamble, "You'll want the minerals on this island. Will you take me to Jersey?"

Gamble said with some disappointment, "You fool! You could be useful too." He lit a fresh cigarette and

nodded. "Of course. And whatever you want to take. If you change your mind you may come back—under scientific economics."

The leaders of Drega's clan were standing around silently, lost in their own thoughts. Sailor scratched and twisted and finally mumbled, "You owe me a lot of money, Drega, and I couldn't collect if I stayed here. I'll be going with you."

A former merchant prince was undecided, then spread his hands, "Vat, no trade? But where am I? Mr. Drega, I stay by you. I am not very hungry this winter anyway."

Llewellyn studied Gamble a long time. Then he swaggered over to Drega. "I was born sweating in a mine and I been fighting for them sort of hours too long to want to get 'em now."

Marillo and Carter both blew their noses and moved behind their chief. The judge scratched his head three times. "That dinner sounds good," he mumbled. He held his arm up and glanced at the frayed cloth of the suit Drega had given him. "But there wouldn't be any constitutional law under you, Gamble." He moved behind Drega.

A former confidence man flipped a lead coin a few minutes, then snapped his fingers, pitched the coin into the river and came over. "I was born a sucker," he grinned.

Tim was talking in a low voice to the bodyguard. One of them laughed at him. Tim smashed him down, yelled. "All right!" Black with rage he went over to his boss. About one third of the bodyguard followed him.

Turpine was picking his nose and wiping his eyes with the back of his wrist. "Nuts!" he snapped savagely. "Lizzie wouldn't get along without you, Mr. Drega."

Drega swallowed. "Lizzie's an elephant. But she belongs to the clan," he explained to Gamble.

Gamble laughed. "There's a bulldozer engine aboard that ship that could pull a dozen elephants! Take the beast. Take everything you want, Drega. I'll toss in food and clothing for the winter and tools."

Drega stiffened.

Gamble's eyes twinkled. He almost felt friendly. "You used to believe it was worth a price to buy a man off!"

Drega began to laugh. "So it is! I'll make it stiff. I want complete equipment to set up a town."

Gamble nodded and called his men to give Drega a hand.

The elephants and Drega's men were aboard. Drega was marching down to the boat. A beautiful woman with blazing diamonds around her neck walked over to him. "And I?" she asked softly.

Drega said, "Marian, it will be—"

She shrugged her shoulders which hard work had returned to beauty. She stepped aboard the boat.

"You're an idiot, Drega!" Prescott said. He was furious with Drega for forcing him to the decision to stay. "This is progress!"

Drega grinned. He pointed toward Jersey. "Over there we'll have money."

Lulu Belle nudged Lucky. "Maybe they'll have two-dollar weddings."

Lucky looked grimly ill at ease. He had risked his life a dozen times for Drega. He liked him—he almost hated himself for it, yet he could not deny his emotions.

But Lucky was a newspaper man at heart. The story was

with Gamble for now. Drega was rebuilding a shattered world. Gamble was making a new one.

The clan had suddenly fallen silent. A few looked hesitant. Thirteen artisans and technicians suddenly ran aboard the boat.

"A good number," Drega stated. "Any more?"

There was shuffling but nobody moved. Silently the clan watched the boat pull into the swift currents of the river. Currents which had broken rafts but barely swung the powerful ship.

Prescott growled. "I hope you don't forget that dinner, Gamble. We ought to have it down here as a farewell."

"Oh, it won't be a farewell," Gamble said. "But I almost forgot about it. I'll radio the ship to pick up food and cookers before it comes back."

"Radio?" Prescott asked.

"The scientific way," Gamble said.

Already his mind was lost in a tremendous efficient scientific future for these people. Abstractedly he drew a device the size of a watch from his pocket. Two short wisps of wire trailed from it. He hooked one onto his belt. It was his own invention and infinitely superior to the type of radio used in the yesterday of three thousand years before.

"Where's a water pipe?" he asked, still abstracted. "I need a running water pipe for this radio."

Prescott swore for one of the few times in his life. He pointed to the swiftly disappearing boat. "Out there! Water pipe! Oh, hell and damnation!" Then he looked at Gamble hesitantly, speculatively. He began to wonder.

XV

GAMBLE AND DREGA WERE MORE ALIKE THAN THEY imagined. Gamble too had the dynamic urge to do things. He too was an organizer. But where Drega organized and drove men, Gamble organized and drove science.

It was with cold detachment that he had put mankind into suspended animation—planned for between fifty and seventy-five years. Somehow—it shocked him to think this even possible—his calculations had erred. Three thousand years had slipped by. Only a time-resisting blanket of pure hydrogen had saved his laboratories.

Yet, from a scientific standpoint, the error was a benefit.

Take gold—Drega had said cheap gold would shatter the world's economic system. Well, the system was shattered —completely. There was no longer reason for Man to think of *money* or *investments*. They could build a new civilization free of the inherent traditions and weaknesses of the old.

This would be a civilization of pure science!

Gamble delivered his promised feast to the clan—fourteen cases of food. Three thousand people looked at the small pile with astonishment.

Gamble smiled. "Concentrated. I assure you, it is sufficient."

His four assistants prepared the lavish feast in a special catalytic stove. Twenty-three hors d'oeuvres occupied a space about an inch square!

But—the course was delicious. So was the half gill of soup. At the end came a striped pill about the size of a peanut.

"What's this?" Prescott grunted skeptically.

Gamble smiled, "A complete banana split. Twelve trimmings."

The copper man leaned over to Lucky. "I'm not hungry but I'll be damned if I et yet! A dinner just don't seem right unless you got something to wade into."

Later Lucky found him nibbling joyously on a piece of dried fish.

Early the next day Gamble began classifying people, picking out leading mathematicians, architects, metallurgical and viscose chemists, electronocists, engineers, artisans and technicians. He gave the afternoon over to physical inspection.

"Terrible," he muttered.

Lucky Flagherty, who had decided to stay on, smiled and said, "The white-collar workers are healthier than ever before! Lilly Peters, who used to keep our books, knocked the tar out of a coal heaver last week!"

"Oh, physically the clan's all right," Gamble said negligently. "But I fear malnutrition of carbohydrates has reduced the capacity for acute concentration. How long can you think of one thing?"

Lucky's eyes fell on Lulu Belle. "I've been thinking

about one thing for these three thousand years."

Gamble examined him as he would study a bug. "Amazing! Perfect case of arrested adolescence."

Lucky said, "Huh?"

"Emotionally about thirteen, I'd judge," Gamble said.

Lulu Belle eyed Lucky suspiciously. "You'd better be more than thirteen if you want to marry me, Lucky Flagherty!"

"Oh, we'll treat his adrenal glands and bring him up to age," Gamble announced. "As soon as he matures he'll realize that you're the wrong girl for him eugenically in any event."

Lulu Belle glowered at Gamble's receding back.

Material for clothing appeared but it was a heavy mottled-gray pulp composition. The women looked at it doubtfully.

"Oh, the silk was just a test product," Gamble explained. "It's obsolete. This is warm and cool and waterproof. It allows the skin to breathe. It can be discarded like paper. You'll notice seams along the edges. Wet them and press them together and your clothing is made."

"But it won't be stylish!" Lulu Belle complained. "It looks like mud."

"Styles and color are anachronisms," Gamble said. "They have meaning only to the savage."

"But I'm still a savage!" Lulu Belle announced.

"As soon as we have time," Gamble told her tolerantly, "we'll treat glands to rid you of such hangovers."

"Well, it looks as if progress were here in person," Lulu Belle noted sarcastically to Prescott.

Prescott said, "There's a lot in what he says. We're still

thinking with the minds and memories of three thousand years ago."

Gamble was highly disappointed with reports on the city. "We'll need comprehensive mineralogical and chemical surveys immediately," he announced.

"But the cannibals are still out there!" Lucky said.

"Highly interesting! The human body's ability to adapt itself to violent changes is one of the mysteries of science. We will have sufficient specimens of cannibalism and mineral diet to make real studies."

"Are you going to kill them?" Prescott asked hesitantly.

"Oh, by no means! Live specimens are more valuable. We'll simply paralyze all animal activity in the cannibal belt for a few days."

His next step with the clan was an antiseptic chemical bath, running them all through a contraption like a sheep dip. After that, an electric treatment toned up their glands and vitality. It had a miraculous effect. Wounds, cuts and colds some of which had been weeks healing, were cured in twenty-four hours.

But a wiser Gamble might have foreseen much from the clan's reaction. Mild ailments had given individuals something to think and grumble about. They had nothing wrong with themselves now and their minds turned to whatever else they could find.

There was much jibing about the pump and endless pipe Gamble had to use for his "super" radio, which had to be hooked up to a running-water pipe for transmission.

Becker, a radio operator, snorted, "That's progress?"

Gamble's laboratory was lighted by highly advanced methods but he kept a supply of "electric bottles" which he

presented to the clan. A twist of the top caused the bottle to shine. Small appliances could be plugged in and run from their energy.

Preliminary surveys showed heavy surface ores and the exact location of tantalum, silver, bronze, gold and heavy copper supplies. Soaps, tars, glues and waxes had been located. A large chunk of heavy purple metal was brought back.

"Gold-aluminum alloy," Gamble noted with interest.

"I've always wanted a set of gold dishes," Lulu Belle enthused.

Gamble sighed. "A set of iron dishes would be more valuable right now."

The metallurgists were excited over the possibilities of unknown metals and alloys as the result of chemical action, pressure and the passage of time. Never before, for instance, had copper been soaked with formaldehyde or prussic acid and left to corrode in salt atmosphere for three thousand years.

Gamble called a meeting. "We're going to build an entirely new civilization *for the first time in history!* All previous cycles have grown out of the traditions of dying peoples!"

The architects in particular grasped the immensity of the vision. "We need steel in large quantities," noted Phillips, most visionary of the group.

Gamble shook his head. "Steel passed with the world's slumber. A much better material is *tantalectron,* tested for years and its technique of production secretly perfected. It was withheld for fear of wrecking the open-hearth steel industry. Three hundred tons of mild steel would be required

to give the equivalent tensile strength of one ton of *tantalectron.*"

"Is that a theoretical comparison?" Phillips asked.

Gamble's eyes lit with pardonable pride. "No, it's a practical working comparison!"

"Could open-hearth furnaces be converted?"

Gamble looked boyishly embarrassed. "There *is* a slight difficulty. Nitrate is needed from Chile. And special glass furnaces are needed for smelting. We know how to make glass but so far we don't know of any substance in which glass can be made in quantity."

Phillips sprang into the awkward silence. "What's the first vital necessity, Gamble?"

"Gold." And the scientist explained, "We need considerable quantities of gold wire to maintain our food supply. But there is one thing even more important."

What could be more important than food?

"We can transmute gold into highly resistant steel!"

"Is there enough gold?" Steig asked.

"The process results in expansion by both weight and volume. All the duro metals should be left. We'll make a new alloy."

Lucky whispered to Prescott. "This is getting a little complicated."

Prescott snapped, "You're not on the editoral page! That reminds me, I must put in a bid for presses. No protection of public interests without a free press. *Harrummm!*"

Gamble was saying, "There is more free gold available than any other metal. It should be a simple matter to get into the sub-Treasury and Drega vaults. Another point is

that most of the power equipment I can give you operates on atomic energy. Inversely from transmutation of iron into gold, with a high production energy cost, when transmuting gold into iron, there is a high atomic energy by-product."

XVI

IT WAS TALLIS OF THE TALLIS VAULT WORKS WHO pointed out; "You're going to have difficulty getting into those vaults. It will surprise me if there is any noticeable corrosion."

Gamble said, "We have electronic torches which can cut any vault by disintegration. But they use radio-active substance of exceptionally high wave length."

Pritchard, an electronics expert, nodded. "It would break down the vaults all right. But—also the gold before you ever got to it."

Salter of the Corinth Glass Works spoke up hesitantly. "We haven't acids or explosives. What we need is some solvent powerful enough to take concrete, iron, copper or lead in its stride. An acid glass—one with excess silica—is the nearest approach to the universal solvent I know of. But for that we need clay."

Gamble was shaken with growing doubts. Was civilization, *science,* to crumble for want of clay? Good crucible clay was almost a treasure and came from distant places.

Salter said grimly, "We can try local clay and prayers.

The clay by itself won't make Indian pottery."

They knew their clays and sands intimately, these lean liquid-death challengers. Using Gamble's boat they searched the shores. But they did not find their clay along the shoreline. They found it when Gamble came back from inspection and Salter picked a piece off his boot.

"Now we need potash and lead oxide," Salter said energetically. "We found a course sand that will do."

Gamble said relievedly, "I can make the potash and lead oxide for you. How much do you need?"

"About two tons of high-grade ash and five of lead."

Gamble stared. Salter was serious. "That would be two months' work for the laboratory's combined kilns! And this new kiln won't be finished for weeks."

Leading men of the new world, glass-makers, electronocists, chemists, engineers, scientists, stood with set faces. In that clan there were men who knew how to direct any activity of industry or science.

But not one man could work from the ground up! They thought in terms of millions of kilowatts or volts, hundred-ton lots, hundred-horsepower equipment. They had risen above the raw earth and nature, were unable to get down.

Drega had recognized this and started at the bottom.

Lucky whispered to Prescott, "Remember Abe Lincoln? Here's the gang whose legs aren't quite long enough to reach the ground."

"You," Prescott said, "are going to get fired—*hmmm*—as soon as I can hire you again!" He was thoroughly sold on progress in big jumps. He wanted a printing press again.

The first snow flurried that morning. A cold wind blew off the river. But Gamble's clan were in excellent spirits.

They had warm clothing.

It was unnecessary with the new plastic clothing to wear outer garments. It was windproof and the inner finishing acted automatically to hold heat close to normal body temperature. It was an inherent property of the material.

Gamble's face was hard as they commenced operations on the sub-Treasury vault. His laboratory had not been set up to produce supplies in industrial quantities. He had taken a risk which he had not mentioned to anybody. For the three utility machines—they could be used for almost anything from hoists to drilling—he had taken fully three-quarters of his remaining supply of atomic fuel.

Unless they got at that gold his laboratory was going to become a finely keyed mechanism without fuel. And to get more fuel out of the ground they needed some of the gold transmuted into iron and steel and energy.

They had, they all fervently prayed, solved the problem of getting the vault open. They would tackle it with limited glass operations.

Gamble had brought down his one tractor, a heavy steamer which he considered the most efficient motive power for this type of work. "I have never seen an obstacle other than a sheer rock face it could not surmount," he said. He was pleased with the way it was hauling a load of clay.

Fate presented the other obstacle. No March Detail had goose-stepped ahead of the heavy unit. No Drega had foreseen catastrophe. The tractor suddenly dropped from sight. There was a splash and a jet of water. When they grappled they found it jammed soldily amid submerged rubble beneath thirty feet of water.

So sand, potash, lead oxide, clay for the crucible and

lime to aid the coke fire had to be hauled slowly, painfully, by hand. The coke came from Gamble's precious laboratory supply. Gamble himself had treated it with a special hydrogen process.

With materials in place and fire pit and chimney fashioned, Salter signalled Gamble. "I'm not sure this can be done. It wasn't in the textbooks." He smiled wryly. "It takes exceedingly good clay to hold molten glass. If we tried making a hard crucible first we might waste ten to twenty weeks. So we've left blowholes in this clay form."

Gamble nodded. "You'll melt your primary mixture and hope the form doesn't break up before it coats."

Salter shook his head. "The clay is mostly a mold for glass reinforcement. If the reinforcement holds and the clay doesn't crack away from the blowholes, we'll have glass."

Salter looked at his gang, nervous with unfamiliar units and materials. They had to work down in the trench beside the vault. If that form failed—molten glass was going to flow out knee-deep.

Silent, the clan stood around while Salter studied every wisp of vapor that steamed from the form. "Drag fire!" he yelled as the steam suddenly changed hue.

In the pit there was furious scrambling to drag the searing fire. Fascinated, the clan watched the skin of the glass workers blister and peel back from the raging heat. Within five minutes somebody had to get beneath that precarious form and knock loose a bung to dump the molten overlay within.

The pit was raked, chemicals to cool it thrown in. Water got into the pit. There was a spot of ice not two feet from where the ground itself burned.

"She's clear!" the gang foreman called. "Knock the bung?"

His eyes were too puffed and his voice too thick to reveal the emotion behind it. But Rumplemeyer knew he was asking for a quick and terrible exodus from this Earth. Ordinarily a reliable crucible was lifted by automatic crane and carried to a safe distance for dumping.

"No," said Salter, "come up." He waited for the tired men to clamber from the pit. He signalled Rumplemeyer. "You understand the mixture for tomorrow? You'll have to gauge your heat. There are no pyrometers."

Rumplemeyer said dizzily, "Yes, I understand. But you'll be here."

Salter said, "Don't forget to add lime silica immediately when the vapors turn deep yellow."

Calmly he picked up a heavy sledge and climbed down the ladder. Carefully he studied the trench flooring and the bottom of the clay form. A tiny jet of milky substance broke out of a hole and spurted past his shoulder.

Salter looked up at the crowd once.

Lucky said, "Jumping Judas, you can't . . ."

Salter swung the sledge. A shower of molten glass flew. Again he swung. A thick milky jet spurted out from the bottom of the form. It looked beautiful and harmless. Its vapors spread heavily.

Lucky's glance switched back to Salter. The vapors were reaching out thickly to hide the man. But Lucky saw the white stuff rising around him.

Only it wasn't rising. It was eating him down from beneath. Salter's one shriek rang as his head disappeared in the molten liquid. Then the trench was filled with smoke

and vapor and fumes.

Only once that night did Lucky speak to Rumplemeyer. "Was it necessary to stay down for that last strike?"

Rumplemeyer nodded heavily. "The form was beginning to go. He had to get that weight out of there quick. It would have been the same if the whole bung had gone on the first strike. But he should have let me do it."

Gamble too spoke only once, softly to himself. "For science," he said in tribute. "Ah, that is the way to go!" He did not know that Lucky was listening. The reporter wondered vaguely whether . . .

In the cold light of dawn Rumplemeyer took tools into the trench and climbed onto its slick, bluish-tinted floor. Carefully he broke off one of the milky jets that hung like icicles from the clay mold. Then he broke out a measured section of clouded glass beneath the mold and carried the chunks above.

The sun was just rising as they dropped these chunks into an ancient Ming vase and lowered the vase carefully into hallowed ground behind the remaining cathedral. Rumplemeyer smiled through his tears. He did not know the vase's museum value but he recognized the skill of a great artisan.

"It is good," he said simply. "It is the way he would have liked."

An hour later Rumplemeyer was swearing at crazy descendants of apes who didn't know how to give a glass man the things he called for.

XVII

NOT UNTIL YEARS LATER, WHEN THE BITS OF THE puzzle of those days fell into place, did Lucky fully understand Gamble's panic that bleak morning.

Gamble was frightened, frightened of an abstract thing —*failure*. He did not think of himself, or the millions of lives depending upon that gold. He did not think of the bitter struggle back to civilization.

He thought of Salter dying knowingly and horribly—for *success*. What if there were no success? What if Salter had made his sacrifice in vain?

New determination fired the glass gang. They were to need it in the coming hours. Rumplemeyer had sounded the filled crucible from twenty directions with a bronze rod. It was too soft to be sure of. It would not be so liable to split.

Without hesitation the gang mixed materials, saw to their working room, inspected every inch of the vault against which they would try to boil glass so that if one man went another could instantly take his place.

It was not unusual *to go* in that trade. A dizzy moment from heat or fumes, a slip, a second of unwariness—there

was no rescue for a glass man.

In spite of the shock of Salter's death Tallis felt glad that he had lived to see his own handiwork. The vault cement was solid. Not as solid as it had once been but more solid than any other cement in the city. That was because of the intricate design of the reinforcement and the special chemical nature of the cement. The iron reinforcements had corroded very little and the cement had given to the growth within. It was still sound.

It was not until later that night that the molten glass began to form. With great care Rumplemeyer nursed it along. There was a trick to the cooking of glass, the holding of an even temperature throughout. Now, though, he needed an acid glass.

At daylight they added the final mixtures. At noon Rumplemeyer got so close to the vapors that heat peeled flesh off his nose and lips. Sudden puffs began to issue from the crucible and he nodded.

"It's ready," he said quietly.

He turned below personally to knock the outlet against the bank vault. It was tricky, working with molten glass spattering down beside their very sides. Each shift of the crucible spelled possible destruction.

Slicing out like a thin milk-white snake, the molten glass ate against the vault. It flowed through cement and rust and iron like butter. But Willis shook his head. Beyond that were twenty-two plies of crossed steel. And beyond that, still more solid steel.

But even this might be negotiated. The most difficult barrier lay still beyond—four separate two-inch plates of copper with heavy ply and woven layers of lead between.

Willis remembered that there were forty-eight thousand cubic feet of copper and ninety-six of lead.

For three solid days the glass gang worked. Hourly they were carried from the pit and returned when they came to. Their bodies looked like raw meat and then began to turn black. On the third day Rumplemeyer staggered out of the pit. He had lost one third of his weight, and he had been solid bone and muscle to start with.

"We have a hole through the steel block packing and the next steel plate."

Gamble said, "Magnificent!"

Rumplemeyer said, "No— the heat is melting the copper and lead inside. It comes through the hole as fast as we burn. But if we stop it hardens and we're nowhere. All that inner lining will have to be cooked out. And when we finish, the entire space will be filled with pressure glass."

Gamble whitened. Willis nodded. Gamble said, "What can we do?" Never had he asked that of man before. And he was asking a pit foreman!

Rumplemeyer shook his head. Salter had . . .

"We'll get through, sir." His voice was grim. "It ain't going to be easy, but we've got only about three feet of copper and lead to cut. The copper goes into solution in that hot glass pretty easy. Lead'll run. If we once get a hole into that lead, let it harden again, then run some more glass, we'll have a glass-lined hole. That way, we'll reach the steel beyond."

"How long?" asked Gamble tightly.

"Six weeks—workin' like hell."

Gamble sat back heavily. "Work like hell then, Rumplemeyer. We've got to get that gold. Gold!" He laughed

grimly and rather unsteadily. He had brought about this suspension—this ruin—because he hated gold and the compromises gold and the love of gold had forced on that long-gone civilization. And he . . . "Yes," he repeated sombrely, "work like hell!"

Work had been called off, and only a fire-crew was on duty. The others were being treated by Gamble's experts. Queer radiations that accompanied some of his atomic release experiments were utterly deadly to infection, fearfully and wonderfully stimulating to healing. But they exhausted the patient's body so that he must sleep twelve full hours to arise sound and fit.

It was miraculous but Gamble could find now no gratification in this knowledge that made it possible to turn baked meat back to sound, living manhood. For Gamble accepted automatically the advanced tools of a great civilization. It was the lack of them—the boring through stubborn concrete and steel with molten glass—that paralyzed his imagination.

Gamble was incapable of understanding how men had first built their weary way through ten thousand years from the treetops and caves to civilization. Gamble could not find that road again nor could his experts. If the gold vault defied them—if the slim chain of vast science his laboratory preserved should break—Gamble would be broken. He had no second string. Drega could work with raw rock and brute power, could build again. Gamble could not. He knew it—now.

Tallis had been watching the glass workers, watching the efforts to break that mighty fortress of wealth he had built. It was a grim satisfaction to him to see the impregna-

ble solidity of it withstanding these assaults as it had weathered the three thousand years of time. He moved over now toward Gamble and Rumplemeyer, near the healing radiations.

"They're digging a trench around toward the front of the vault. What's the plan now, Rumplemeyer?" he asked curiously.

"Shunt the cooling glass away before it hardens in place and plugs the hole it cuts. We've been breaking it out with sledges but it's too far in to swing now."

"You stopped just short of the lime-layer, I noticed. There's—"

Rumplemeyer turned sharply. "'Lime-layer?' What the hell! What do you mean, 'lime-layer'?"

Tallis stepped back started. "Why, between two layers of two-inch copper there's that layer of lime—lime-cement —I told you about!"

"What's 'lime-cement'?" snapped the glass man.

"Quicklime and water mixed and pounded into place. It stops oxygen torches. It won't melt and drinks the heat."

Rumplemeyer sat down weakly. "Oh, Lord—lime!" He shook his head slowly. "One of the few things on Earth that glass can't cut. Lime glass is basic. It won't cut steel. It won't cut copper. And it won't melt."

Gamble took a hesitant step toward the steaming pit, where men still worked. Some of the others of the clan were digging there. Shovels threw dirt up to a mound of raw earth.

There was a shout down there suddenly—then a lurid cursing, and sudden silence. Two of Gamble's medical assistants started forward on the run. Six of the glass workers

mounted from the pit, cold fury blazing in their eyes, from their blistered faces. They walked past the medical men unheeding, their eyes on Gamble. The biggest of them halted menacingly before the scientist, a heavy pick-handle clenched in white-knuckled hands.

"Listen, you run-down genius, did you know about that vault?"

"Know—know about . . .? You mean the lime? No." Gamble shook his head despondently. The slim thread—the chain to the past—was broken.

"Lime, hell! The door, you damned crackpot! You let Salter die—and the door . . .!"

"Oh," said Tallis softly. "The time lock would go off . . ."

XVIII

DREGA WAS LATER TO LAUGH ABOUT THIS. IT WAS THE very gold that Gamble condemned that made possible his resurrection of civilization. Without it he could not have sustained the food supply nor mined iron in time. For Gamble's world simply did not understand the simple ways of their forefathers.

Gold gave to the artisans and technicians the tool they understood and needed and had confidence in. It gave them *power*. It made possible again the correlation of experts and specialists, for many men knew only division of their trade.

Phillips, for instance, could not cut and join pipe, although he could figure the total pipe length in a huge building to the inch. Foundation masons were lost on precise chimney work.

But it was not possible to jump immediately into the world Gamble dreamed of. His laboratory worked at peak capacity. He had expert help. Many of the scientists, professors and post-graduate students of the university had survived.

He had reclaimed the cannibal tribes and released a surprisingly large number of the people still living underground. From the eighty-four thousand people who had survived in Manhattan he could select specialists in almost any line.

His first major work was to reclaim the spoils of the dead city. But equipment was terribly limited. They needed tremendous amounts of lime and coke and charcoal.

To Gamble charcoal had always been something one telephoned for and received. Occasionally, for exceedingly delicate work, he had made his own in small quantities, but in a special electric oven designed for just that purpose. There was no material to make a larger oven of that order.

Thornton was a former owner of a vast charcoal works supplying the whole alloy-steel industry. But Thornton had never made anything except specified high qualities of charcoal. He had ordered special woods from one locality, clays from another. He had used chemicals which were not now available.

His pits had been specially prepared for draft. He simply said to the foreman, "Wouldn't it improve the char combustion if we used forced draft and increased the pressure?" Exactly what the foreman had done, or how, Thornton did not know.

Now he took the woods and clay at hand. The clays he knew but the wood grading he had to take on another's say-so. Except that it was wood of a quality and type his works never would have considered, he knew nothing about it.

There was a battle over the use of the five power-saws between Phillips and Thornton. Phillips was busily con-

structing urgently needed work houses. Thornton wanted wood for fires immediately. Both of them had to wait. There was a slide at surface mine No. Six and Rickards got the saws to cut emergency reinforcing timbers.

Gamble considered handsaws archaic but to supply the present shortage of machines he made one hundred crosscut saws at his laboratory. Carpenters and woodsmen felt and sprang and tuned them with admiration. Never had they seen finer steel.

The only trouble was they wouldn't saw. They squealed and jammed. There was no kerosene and sawing was difficult at best. A lumberman said, "You set the teeth wrong. They shouldn't be even."

Gamble colored. The type and tempering of that steel was such that the teeth couldn't be changed. He had made the steel purposely to spring back into original shape. Reforging ruined the perfect quality of the steel. But the saws worked.

Thornton superintended the piling and smothering of charcoal piles himself. He knew the piles were right, the proper amounts of clay laid on. How often had he worked on graphs and blueprints far into the night to get the right angles, the best positions for blowholes, the right amounts of clay and pressure?

But his furnaces had been a hundred times the size of these. They had heat and pressure meters, and intricate mazes of drafts. If he said, "Force sixteen draft," the foreman carried out the rest. It was the foreman who arranged the draft vents, the damping, the piling. And the foreman was not there.

A talkative old man watched Thornton's gang. He

talked incessantly about potato farming. When asked his opinion on anything he would go off into long-winded details of why it wouldn't work. "The charcoal will never cook," he said.

It didn't.

Three times Thornton tried his luck. The last time he got a poor quality charcoal. Why, he didn't know. He had built his furnaces exactly as before. The garrulous old man shook his head.

"Well," Thornton snapped, "maybe you can make it?"

The old man chortled. "Make it? I been making it for nigh on sixty years."

Thornton glared. "Why didn't you say so?"

"Nobody asked me."

The old man blew his nose, picked a tooth and regarded a bit of food on the end of his fingernail. "Why back before there was automobiles . . ." he began.

Thornton forced himself to listen. Twenty minutes later the old man said, "With a small furnace like these you got to burn your wood three days before smothering."

Thornton snapped, "You idiot! The wood would burn up!"

"Not if you do it right. You lay on your first blankets, but you don't put on your pressure cover. Then your vents aren't big enough for a small furnace. I reckon you just reduced the size of a regular furnace but it don't work that way."

The old man built the next fire. It made prime charcoal.

The winter cut into charcoal operations. It froze the clay beds.

Gamble's laboratories were working day and night.

There was the food supply to be maintained, which took up a large part of the staff's time. There were compounds to make and surface ores to be tested.

Gamble himself was busy on the perfection of new alloys which could be made out of reclaimed metals. These required entirely new treatments, since the original metal had had strange alloy-elements that had to be allowed for. Each new process required experiment with chemicals which could be made from the materials at hand.

Surrounding communities had not entered into the spirit of the new civilization. Many of them were savage and people either attacked or hid at Gamble's approach. Gamble was more bitter than ever at Drega. He had sent across the river and asked for fifteen tons of a common but particular type of mica. He had offered tools, equipment, explosives to mine it with.

Drega had held him up for fifteen tons of prime cement and kept the tools to boot. For a week the entire clan had had to stop work and concentrate on machinery and materials to make that cement.

By mid-winter it became apparent that the new type of atomic power would not meet all needs. Men did not yet know how to make machines which it could operate and they were careless with it. A crack electronocist had been blown to bits. Rushed and unable to find a meter handy, he had trusted to judgment to adjust the flow.

Others were afraid of the atomic power, even though hard radiation was perfectly screened. The lowest units ran a quarter of a million volts of d.c. which could not be transformed, and they had no insulation against the charges of mutilating death. Half a dozen men had been killed while

setting up power lines of iron wire, charred to cinders by the giant arcs which burst across insulators. Oddly, one blast of rampant power had knocked a lineman three hundred feet—but except for a badly burned spot on one shoulder he had suffered no great injury.

Morosely, Gamble ordered hydro-electric and coal plants. It meant a decided change in plans. It meant bulky, cumbersome and heavy machines were needed in quantity. It meant cable and insulation and tremendous man power. It meant time and work investment for an obsolete type of power which would not be used for more than four or five years at the most.

"Cheer up," said Phillips. "The men know how to handle them. With power they're familiar with they can quickly make equipment for atomic power."

But Gamble did not cheer. Why couldn't these men learn to use a new power which simply required caution and respect? The old forms of electricity, like old steel, were a compromise. Compromise was the basic fault of Drega's world, the very core of the old civilization's canker.

The great coal stores were across the East River by the Brooklyn shipyards. A savage clan of cannibals held that area. A sizable expedition set out with a paralyzing ray machine but it was delicate and could not be transported easily. It took them five days to find the tunnel in which the most important tribe lived. Gamble's men were almost struck down from behind before they knew their danger. But a heavy shock of the released rays put all except the insulated party into a state of physical paralysis.

Gamble found the leader, evident because of his three fur pieces, one of them a horsehide. They were not well

tanned and their warmth-value was doubtful. Gamble briefly stated his wants.

The savage leader studied him and his people shrewdly. Once he had been a longshoreman. He saw that Gamble's people had things he wanted. What mattered how he got them? As soon as he found out he planned to kill them off and take everything. He agreed.

The need was for transport boats. A flat service type was decided upon. Gamble produced in one evening the specifications for an easily made plastic which would serve for hulls. It required wood and asbestos and tar. All were available on the island but it threw the heavy work back on the lumber and mine departments. In the bitter wet cold of a seaboard winter, these divisions sweated and froze while others took things easy or worked in comfort in heated buildings. There was grumbling.

But with the coming of old-type electricity there was satisfaction. Artists and technicians were busy, absorbed in their work. They began to catch something of Gamble's vast dream. They spent hours working out ideas and problems which were child's play to the leaders but represented tremendous strides in viewpoint for them.

After one outbreak in which they were badly shocked, the Brooklyn clans settled down. Prescott noticed their increasing lethargy. They had been wild and strongly tainted with criminal instincts but they had been vital. After electrotherapy had brought their glands in harmony they became listless, a passive group. They were better citizens.

"But their spark is gone," Prescott said.

"It will take three or four generations of scientific breeding to build up their brain capacity," Gamble said.

Prescott looked at the men building the new civilization and was not sure the change was worth the cost. They were a brilliant lot, these new leaders, consumed with scientific zeal. And most of them were about as colorful as the clothing Gamble had supplied. Privately Prescott was still thrilled by swashbuckling pirates.

The major catastrophe of the year came in the spring. Gamble's big boat had been left out in the East River. In the spring break-up it was crushed and much valuable equipment went down with it. But most valuable was the motor. Although of a radically advanced type it had been made of the finest crucible steel.

No other steel would do and it was impossible to duplicate without the original workers.

Gamble sent an expedition across the Hudson aboard a scow. They had with them his atomic-powered automobile and they were to get through to Pittsburgh and bring back the men who had made that fine steel.

Amused, Drega let them through for a price. Gamble had to supply him with a complete electro-power plant. There was no choice as Drega held several of Gamble's best men hostages.

Twenty miles past the crude town Drega was building, the car broke down in the rough country. The expedition got out and hiked. Drega found the car, dismantled the motor and used it for hoisting.

Five months later the expedition returned. They had traversed grimly savage country, although the rural sections seemed to be building farms just like those they had known. Two of the expedition brought back no ears.

Gamble was livid with outrage. They had found the manufacturer who made the steel. When they told him about the boat his eyes darkened.

"Tell Gamble," he gritted, "that any man who managed to bring a boat and laboratory safely through what happened can do no business with Pittsburgh."

Only fifty percent of the population in that district had died. But of the remaining, sixty-one percent were maimed.

Gamble said, "They don't understand."

Prescott calmed him. "It will take a little time for them to get the significance of this. As soon as they see what you are aiming at they'll fall in line."

Prescott was in very good standing these days. He was a good outlet valve. He blew his nose on a paper handkerchief. "By the way, Simon, the new presses are almost ready. It will seem funny, printing by light, but it makes a better looking format. What are we going to do for paper?"

"Minerals," said Gamble. "It's quite practical."

The legitimate excuse to experiment with a mineral paper was what had motivated Gamble into having the photo-presses made for Prescott during these busy days. Personally he considered newspapers obsolete. Soon now they would have television again.

It did not strike him that his rationalization was particularly human. Gamble had little sense of humor.

XIX

THE FOLLOWING TEN YEARS MADE A TREMENDOUS change in life under Gamble. The supreme crisis had come in the third year, when the work requirements overtaxed all possible power supplies. They had harnessed their whole side of the river and made the tides toil for them but still there was not enough power. For Gamble wanted to do more than simply give back a civilization. He wanted to see the new civilization working.

He found himself seriously overburdened with the transmutation of energy. The simple things, catalytic action of sea water, increasing the efficiency of engines, perfecting the quality and strength of various products—these things his division chiefs could handle. But the transmutation of energy was beyond most. He worked with a handful of scientists.

Now he saw he must take the time to teach others. It meant months of instructing men to handle this leashed lightning of atomic power. A new generation of young atomic-power engineers grew up, however. They understood and handled Gamble's mechanisms.

With the solution of the energy problem Gamble's civilization began to spurt ahead. But it did not help to extend his influence. He now controlled Long Island and the former five boroughs of Manhattan. He was on friendly terms with clans to the north as far as Albany. This terminated his sphere of power.

The new civilization was using plastics heavily. All clothing was made of plastics, as were many building materials and even machines. But the products of other climates were missing. Expeditions had been sent to tropical countries with building materials and metals for barter. They returned empty-handed. The natives weren't interested in work. The white men who had driven them before weren't interested in the materials offered.

Substitutes had been found but the problem of wood pulp grew more serious daily. Most of the timber on Gamble's land had been utilized in making plastics of various kinds. Gamble had saturated the country to the north with iron, shovels, plows, crowbars, saws, glass and building materials in exchange for wood pulp. Now that rural communities were beginning to find their feet again, they had become shrewd, hard bargainers.

There were shrewd and hard bargainers in Gamble's clan but they had not shown great interest in their talents. What did it get them? They already had everything the new civilization had to offer. It was not pleasant going up into the woods for extended periods of trade. They didn't go.

Gamble himself had made one trip, consumed with a desire to offer the people the great benefits of his civilization. He had almost been lynched three times. The citizens up country had no desire for his world of science. They were

interested, they listened to what was being done. A few would have liked radios, movies and television machines. But he could have won more real interest with plugs of good old-fashioned tobacco.

"All I know about you, mister, is that you're making cheap gold and all my life savings in insurance aren't worth a split rail!" a venerable farmer shouted.

"But you don't need insurance," Gamble explained. "Whatever you need, civilization will give you."

"It won't give me back my life savings," the old man insisted.

Gramble tried another group. "Don't you want the benefits of science?" he queried.

"We're doing all right," they said.

Gamble controlled his exasperation. "Here, take a simple case. Wouldn't you like hot and cold water without walking to the spring or chopping wood? Just by pressing a button!"

"What's the sense of that when we got the spring and the wood?" asked Jed Hawkins. "My old lady ain't got enough to keep her mind off other people's business the way it is!"

Gamble returned, nettled and vexed by human stupidity. Utter cretinism! He couldn't understand such bullheadedness. He had lain down in a patch of poison ivy and couldn't treat it until his return, which made his mood worse.

Occasionally there were dealings with Drega, always at a staggering cost to Gamble. Gamble's ships were forbidden to land on Drega's property except on notice. Those of Drega's clan who wanted to could join Gamble's people —but they couldn't come back.

At first this had piqued Gamble. But slowly he saw that he was winning out. There were occasional desertions from Drega's harsh rule. People heard about Gamble and the new community and wandered in from distant places. This pleased him. But he would have preferred it if they had been people of a different type. Those who came to stay showed a marked tendency toward laziness or pseudo-philosophy—particularly those who left Drega. They wanted to be honored for having an idea. Gamble's people had countless ideas as a matter of course.

Gamble had made one attempt to make peace with Drega. He had done this in spite of their mutual personal antipathy and bitterness. He thought his civilization owed it to others to offer them its fruits. The answer came back that Drega liked the toil and struggle of old-fashioned existence.

Gamble learned that Drega had opened trade with the whole interior. He had clumsy wooden boats in operation and two steel boats were being made at Pittsburgh. But the backbone of Drega's trade was whiskey.

Gamble would not stoop to this. But it annoyed him to look across the river and see a tower of good steel rise and form itself into a replica of the old Drega tower.

It was typical of Drega that his tower dominated the Hudson while men and women within fifty miles starved and went without clothing. But it worked. Word went far and wide. People began to stream to Drega's town for trade and celebration. The city flourished and Drega's influence grew.

Drega was hampered by Gamble's work in one way. As fast as a new standard—platinum—silver—wheat—was se-

lected, Gamble's transmutation or trick production methods upset it. Since there was no definite yardstick for value he had to do much business in barter. It annoyed him but his real interest was the cheap labor possible under current conditions.

With cheap labor he could build—build endlessly. He was already arranging to put through the railroad to the west coast again. Word had come there still was a west coast. It was a thousand miles farther away than it had been.

But all in all, Gamble could be pleased on the tenth anniversary of his rule. Around him, the city stretched in perfect plan. Broad parks which would bloom with flowers were already surveyed. There was a stretch down one side of the city where airplanes could land. Beneath there would be ground conveyance, beneath that fast freight transportation.

The city plan was perfect. It began with deep mines. The island was a mineralogical treasure house. On lower levels were refineries and factories. There was a general utility level above that, including depots for food, clothing, material, theaters, etc. Endless platforms would eventually carry the people along this level.

Towering above-ground would be giant skyscrapers, but of an entirely new design and construction and conception. Six of them were already built. Not perfect, they represented vast scientific advancement. For one thing they had no windows. Why should they? They were properly lighted and air-conditioned inside.

It was true that people did not like working in them. But that was an anachronism—a hangover of memory. The one tower of glass which admitted natural light Gamble al-

lowed Phillips to build because the idea amused him.

In colonies around the city were small apartment houses and private homes. Citizens could have whichever they desired, as quickly as construction could take care of them. Gamble had been surprised at their choice. In spite of every conceivable appliance to make life easy most workers chose apartments.

He had envisaged a city of comfortable cozy homes with green lawns and the inhabitants spending much of their leisure time—they worked a twenty hour week now—enhancing their gardens. Some had done this. Most had let their lawns run down. There was a growing demand that the city government furnish garden and lawn service. It was too much work to care for their own property.

Of course, the rebuilding of the city had only just begun. Until two years previously the clan had been barely able to keep abreast of pressing basic work for survival. There had been keen interest in the future and Gamble had thought his people would take great pride in their personal lives.

But the first radical slash of working hours had not brought this expected reaction. He could not quite put his finger on which glands were responsible. With ample time, security, all the necessities and many luxuries of life provided—his people seemed to forget progress. They were not even living up to their present station.

And the new arrivals from outside, who had come in since the building work was done, were not at all cooperative. More and more were accepting Gamble's offer of a civilization that gave no pay, no money, but did not demand any for food, clothing or shelter either.

During the most hectic periods of driving work there

had been sharp vital debates, a flood of new ideas. People had been keen and active and interested in life. Some of the most progressive ideas, brilliant scientific work and best literature had been produced then.

But now they had leisure they did nothing. Gamble had reports that there was even a falling off in tri-di movie attendance and the television fan-mail was dropping. The increasing demand for slushy claptrap entertainment was startling.

"A matter of orientation," Prescott said. "This older generation has been through too much. The younger will be able to take hold."

Prescott was now in charge of the press and news televising. He could not get much enthusiasm about the newer types of news dissemination. There was no way to see what had been done or said after it had happened. It wasn't newsprint.

Gamble sighed. "Our first ship got back from Chile today."

"Ah, the nitrates! Now we'll get that *tantalectron*, eh?"

Gamble's eyes fired moodily. "The Chileans won't do business with us. I sent word that we would send them whatever *tantalectron* they needed as soon as production got under way. They replied they wouldn't know what to do with it."

"That's Drega fighting you, of course," Prescott said. "Still—it's amazing the number of people who would rather starve than be benefited."

"It's getting serious," Gamble stated. "We have a good many minerals here, but we need many from outside. We've consumed all the surface ores left from the old city. We

need copper, radium, oil, chemicals and vanadium. The atoms of some metals are so unstable my transmutation won't make them. Pittsburgh turned us down on vanadium pentoxide again. On the Gulf it's a serious offense to ship us sulphur."

"Of course, you could get it by old-fashioned trade," Prescott offered.

Gamble smashed his hand on a plastic table. "That's exactly what we can't do! We've proved the practicability of a scientific civilization. Now we need it on a world basis."

He strode around an electrode and glared at Prescott. "That coyote, Macken, was down from upstate yesterday. He's got a corner on all the ginseng available and he won't let it go. He's holding out for a market. We need that supply for gland stimulation. Our people are getting lazy."

"What did he say when he saw the new city?"

Gamble became almost unintelligible with fury. "He said the old city had more skyscrapers and he missed the night-clubs and burlesque shows!"

"You should have given him an electric treatment for generosity and logic."

"I did," Gamble gritted. "I gave him enough to kill a man. The old Yankee skinflint gave me a pound of blueberry cobbler and told me to forget this civilization business and come up and go fishing!"

"Well, here's some good news," Prescott said. "The ten-year-old class in school passed one hundred percent in trigonometry."

"They ought to be doing calculus!" Gamble snapped. He collected himself with effort. "By the way, I'll have to shut down your paper."

Prescott licked dry lips.

"I'm sorry," Gamble said. "We're short of materials and need that photo-electronic equipment for conversion to astronomical uses."

"But the public—" blurted Prescott.

"Oh, they have television. Newspapers are really obsolete," Gamble said.

Prescott went back to the one glass building and sat looking through the single foot-square clear glass window which he had secretly bribed Phillips into installing. Phillips' one weakness was publicity. He loved to see his picture in the paper.

Prescott thought, "Maybe I've lived too long, but I can't conceive of a healthy civilization without a press."

XX

PRESCOTT SAID, "SEND FLAGHERTY." HE DID NOT HAVE to move. A highly sensitive cell oscillated to his desire to see one of the staff and threw the speaker open.

Lucky came in, wearing a bored expression. There wasn't much news any more. All the insane and criminals were cured by treatment. There were very few accidents. There were no fires or explosions. There was no gambling or night-club life or underworld.

"What's the late news?" Prescott asked.

"A dog bit a man. They treated the dog's thyroid and inoculated him with some mouse serum. Now he's chasing cheeses and running away from cats."

"Nothing else?"

"Page one headline is that a grave error has existed in estimated diameter of the Earth's orbit. It is now established at one thousand thirty-six miles short of previous estimates."

"Any building news?"

"Some swell stuff, but you ordered me not to print it. Phillips has completed his final detailed city plan and it's a honey. But it involves the use of a number of chemicals

and minerals we haven't got. Outside of that Copper just ate some crabs, which are off the diet, and it upset his metabolic count. He got out of control and swiped a scow and was last seen heading toward Drega's."

Prescott grinned. "What's wrong? Too much work?"

"Not enough. He said the only thing he ever really enjoyed was eating and sleeping. Now he doesn't work enough to get an appetite, and this formula food keeps him so pepped up he doesn't need the sleep. He's going over where the smelter men are sweating nine hours a day instead of sitting beside a bunch of buttons behind an insulated shield for four hours."

"Anyone go with him?"

"Rogers, the police captain. He's fed up with taking hoodlums to a chemical psychopathic ward. Anyway, he hadn't had a case in three weeks."

Lulu Belle burst in, unannounced as usual. She said, "I Just heard Copper went over to Drega's and I think it's a good idea. I don't know why I didn't think of it before."

Lucky looked at her face and gulped. "Why honey, what's wrong here?"

Lulu Belle swept a hand over a very serviceable—and frowzy—looking dress. "What's *wrong?* I look like a sack of potatoes and he asks what's wrong! You can't get a decent dress in this town for love or money. There's no money and all the men are too dopey to be interested in love!"

"That's a fine way to talk just when we've finally decided to get married," Lucky told her.

Lulu Belle took a deep breath and said very steadily, "Lucky, I'm not marrying you. You're getting as bad as the rest."

"What rest—whaddya mean?"

"The men in this damned city. You're not human any more. You sound like a calculating machine when you begin one of your dazzling conversations. You spent four hours last night spouting an explanation of what this new *elexzerces* force is and how it will improve brain capacity. I don't want to marry a brain, Lucky—I want a *man*. I'm going over to Drega's too. He's still got men, I hear." She stamped out of the room.

Lucky yelled at the microphone. "Gimme Doc Whipple!" The doctor's voice came on and Lucky nervously told what Lulu had said. The doctor laughed. "We'll pick her up. Don't worry. She's short on her vitamin X and her endocrine balance is a little upset."

Prescott was studying Lucky intently. "Would you have called the police to pick her up in the old days? Or paddled her little posterior?"

"Well—" Lucky stopped. "You're right. Hell, *she's* right, Chief!"

Prescott said, "I still believe in progress and the stupidity of our old society. But I don't think this new one is complete. Something's missing. Something's wrong when a man as big as Gamble can't raise enough trust to get minerals and chemicals. Um-m-m—and photo-electric equipment."

Lucky said, "Chief, there's going to be a break. Things happened too quick for people to adjust to the changes. And the kids growing up can't take it either. The school system here is perfect. It's had more thought and research poured into it than anything else except the power project. It's so perfect these kids are looking a hundred years ahead."

Prescott lit a cigar. "What do they see?"

"A twelve-year-old in the graduating class at Murray High got up and walked out of the room this morning. He said he was depressed. They started to give him a stomach toner but he said it wasn't that. He was just thinking that in another hundred years there wouldn't be any need for men!"

Prescott said thoughtfully, "That's not as far-fetched as it sounds."

Lucky dropped his voice. "Listen, Chief, it isn't far-fetched at all. If we were getting the supplies here we need, they'd cut the work week to five hours tomorrow. They've got machines to do damned near everything now except think."

"Men will always have to do that," Prescott said.

Lucky shook his head. "Last night I was over at Polatov's. He had a break with Gamble a couple of weeks ago and is living on minimum rations. We've been taking him bits of equipment and things. Do you know why he had the break? Because Gamble wouldn't give him time to work on an automatic brain! Now he's finished the thing—*and it works!*"

Prescott muttered, "Good Lord!"

Lucky nodded. "He isn't making this public. He just wanted to prove an automatic brain could direct a mechanism without outside help. It was a cat's brain and had real cat's eyes, alive in solution and nerves intact. He attached it to a static vacuum and let a mouse loose. The vacuum chased the mouse and caught it!"

"That would be funny if it wasn't Polatov. In many ways he's a greater genius than Gamble."

"He's going to kill this secret. But it won't be long before somebody else digs it up. What's going to happen if a bunch of those brains get loose on a civilization completely supported and controlled by machines?"

"At least they can't reproduce."

"Unless they get some scientist into their power to make them. There are a few good scientists in this city who would like to help take Gamble's place. Maybe some of those brains would pan out smarter than the man who made them."

Walters, the astronomer, came in looking gray and haggard.

"Good Lord! Get him a shot of eltcor-stimulant," Prescott said.

Walters said, "No more. It's these damned scientific gadgets that wrecked me." He blew his nose. "My wife just ran off with another man. It's my fault."

"What are you going to do?"

"Drega's offered me a new observatory they're building. And"—Walters was a teetotaler and he smiled cynically—"the equivalent of two thousand cases of malt whiskey per annum. I understand that whiskey's quite a valuable commodity over there."

The news ticker announced, "Polatov commits suicide. Explodes laboratory. Gamble says undoubtedly short on vitamin . . ."

XXI

THE CLOSING OF THE PAPER MARKED AN ERA IN Gamble's civilization. Long afterward Prescott wondered whether the people actually missed the paper or whether trouble was brewing in any event and he had simply fanned it by his own uncertainty and troubled state of mind.

Probably Phillips missed the paper most. He still appeared often on television. He was constantly in the public eye. But he missed the printed page. He had been wont, in the privacy of his office, to take out his scrapbook and read the most recent stories about him between sieges of intense work. It gratified his vanity and stimulated him to new endeavors.

On the day when Drega's paper ran a two-page story on Phillips' architectural mastery and gave details of the new city, Phillips began to wonder whether Gamble's civilization was as perfect as, say, his own city plans. There were annoyances. Phillips was not a grapsing man but it had been something of a let-down to win the third consecutive architectural price and realize there was no greater reward than glory. He had the reputation and glory to start with.

For all that civilization, a very peculiar thing happened to Mr. Phillips as he read Drega's glowing account the third time. He suddenly thought of the vast opportunities for an architect of his abilities in Drega's world. Here everything was so neatly ordered that any architect could supply requirements. But over there—ah, *there* were problems and dangers of building! *There,* it was the old grim battle to get a building up, something a man could get his teeth into and tussle with.

Phillips realized that this was the battle urge and that gland 2207 must be over-secreting. A second very peculiar thing happened. He did not take the required gland balancer. He rather enjoyed his imaginative thoughts of danger and difficulties.

A month later Phillips went to Drega's. He had let his diet go to the devil during that time and he was filled with toxins that made him outrageously old-world drunk. He was also contented.

He said to Steig, "I'm sick of this perfect system. I want some excitement! I want to know again that a crummy architect may get my job because somebody in power likes him. I want to see my building going up with bum materials and have the sport of getting them by the building inspectors. I want to fight to get materials ahead of some prior order and scheme to get some city ordinance overlooked."

Steig said, "You're sick, Phillips." But his own mind began to work. "It *is* sort of quiet around here, though. Lord! I remember back in the old Stevens plant it was so noisy you had to yell. One day I miscalculated a cylinder expansion on a test model and it almost blew the plant up."

He never miscalculated now. He had a machine to do

his calculating for him.

Phillips said, "Well, I'm leaving. I hope Gamble understands."

"He'll make a case study of your diet," said Steig sourly. "That's all it will mean to him." Steig was silent a moment. Then abruptly, grinning like a runaway boy, "I'm going with you!"

But these were scattered cases, unnoticed in the ponderous onward march of that highly-geared civilization. These men's brains were missed—but not the men themselves.

During these days serious supply problems kept Gamble at his laboratory in search of substitutes. If he had got out among his people more he might have heard and worked out a scientific solution to the problem. But even in his laboratory, certain monthly figures should have told him something was amiss.

The birth rate was up thirty percent from the previous year and seventy percent from five years before. This was due to no family desire. It was due to sheer boredom. There were no longer danger and stimulus to life. The public was fed up with itself. There was plenty of amusement—which the public did not attend very heavily. And there was a growing clamor against Gamble. What did he expect them to do with their time? He should provide something to stimulate their desires!

Gamble had thought that with the reduction of lower scale work the people would turn to more play and relaxation and study to climb into the upper brackets. But not all men were born with the desire to climb into the upper brackets. Many simply wished for some work they could do well and keep occupied. Others—many such had come

—wanted only to be fed.

The laborers were always squawking on principle, of course, but it was the artisans who first felt fear of the civilization. Forge men sat on comfortable seats and watched iron claws and mechanical contrivances do their work for them. The plastic molders put three-dimensional photographs in a frame and smoked while the product was being molded. Rumplemeyer sat in a glass turret of a vast glass factory and touched levers and buttons which ran the entire place. There were three other men on his shift. Two of them never saw a bit either of the material or product!

"Salter would not have liked this," Rumplemeyer grumbled. "How can you know a product is good when you don't handle it?"

The product was good but his thought was sound. The civilization behind the product was crumbling because men did not have a personal interest left. Men grew subconsciously jealous of these machines which had stolen their work. Hazily they felt that perhaps Man was not born *not to struggle*. They felt the importance of being important. What did they mean here? They were not even important to themselves.

It was a small thing which brought matters to a climax. For four consecutive months the production of colored enamelware had been thrown out of kilter by an inexplicable demand for the product. All production was on a basis of a careful study of public needs. But in this one item the surplus had been wiped out and there was a clamor for all the enamelware available.

An investigation disclosed that Ross, the city comptroller, was hoarding. This brought out the fact that he was

holding five additional jobs under various names and using the credits of those jobs for his peculiar acquisition. He had no use for the hoarded treasures—the products were not even valuable. Yet he was working eighteen hours daily to support his quirk.

He was an invaluable man and every effort was put into his glandular treatment. His diet was changed. He was treated with short waves. He was cured.

But somehow—his brilliance was gone. He still did a good job but his genius for probing out unsolved problems had disappeared. They had taken away his stimulus in life. Ross was smart enough to realize what had happened and to resent it.

In the big laboratory which crouched above the city these were hectic days with vital supplies beginning to run out. Tension was high, and during a minor controversy Gamble snapped at a small fault of Ross'.

It was Ross who gave Lucky the story of the terrible shortage of sulphur and vanadium which was driving Gamble's civilization into veritable bankruptcy. Sulphur for acid —vanadium for catalysts and special steels. It would be a terrible bankruptcy for those who depended upon Gamble's civilization, for it would fall like a knife, utterly unexpected. And upon the breaking down of a single unit of that complex machine the whole structure would tumble.

Nor was there any way of borrowing for these people. Gamble was accused of having broken down the economic systems of the world. Outside of his own territory he was hated. None who lived under him could expect compassion or help from people who were still struggling for bare existence.

Lucky, galled by another outburst from Lulu Belle, broke the story in screaming dramatic headlines over the televisor that night. He spoke only of the shortage faced by the nation. But the people concentrated their fear and hatred on Gamble.

It was recalled that once before this man had nearly wrecked the world with his talk of cheap gold and cheap wheat. Word leaked out from the cold abstract theoreticians that he was responsible for the world's suspension in time. The masses had only vaguely suspected that—had half thought that, possibly foreseeing what was going to happen, he had simply protected himself.

Wild with the frenzied fear of people who could no longer stand alone, they rushed to his laboratories, thirsty for his blood. Not because he had given them this something-for-nothing world but because his failure was taking it away —this is what was in their minds.

Gamble could have protected himself, beaten them into submission by cutting off their food supply and touching the city's master switch. But he was not wise in the ways of human nature. He still believed in cold logic. He went down to meet the people and explain.

They would have ripped him to shreds, had it not been for Prescott. Every one of them had lost people dear to them while they went on living. They were shouting it against him now. But Prescott knew human nature and the power of tradition. There were no courts in this new civilization, only hospitals and clinics. Yet the masses still had respect for the old laws.

"A trial," Prescott called upon the mob. "He is entitled to it under the Constitution!"

There was a pause in the mob's heat. "Get Drega!" Prescott snapped softly at Lucky. Then mob hysteria blazed up again, blazed doubly high as the artifical controls of the body toxins were smashed through.

It was touch and go. Fortunately a small platoon of Gamble's ablest young scientists managed to slip up from a little-used passage behind the platform on which their leader stood at bay in one of the rebuilt city's great new plazas, facing the mindless, passionate horde that cried out for his blood.

They carried electronic ray neutralizers with them, hastily culled from the community's small arsenal—weapons, being scientifically wasteful, were not an important factor in Gamble's creed—and were able to ring the platform before the mob hysteria got completely out of hand.

"Thank God you got here in time," said Prescott, mopping a streaming brow with a handkerchief that dissolved while in use.

"We haven't much time left if we're to handle *them*," said the leader of the young scientists, looking meaningfully out over the surging sea of heads that filled the vast plaza. "Better get him out of here—quick. Use the tunnel we did and take him to Science Center. We have that area guarded."

Even as he spoke a ringleader of the crowd below shouted something that brought a rising answering roar from the mob. Like a wave of lava the outraged citizenry swept against the base of the platform, the cadence of their feet making the whole square tremble.

"Stand back—stand back or get hurt!" shouted the leader of the scientists, a prematurely bald young man

named Marlin, his voice carried throughout the plaza by an amplifier system.

The roar of the crowd merely grew louder in answer and its vanguard began the process of scaling the platform. A shower of missiles arched through the air to bombard Gamble and his defenders. One of the young scientists dropped and Prescott felt a lump of mineral strike his shoulder, numbing it.

"Let them have it," Marlin ordered and, tight-lipped, the cool headed young scientists turned on their electronic ray weapons and sprayed the front of the crowd as if it were a swarm of locusts. A low moaning sound arose from tens of thousands of throats as the vanguard was mowed down in a state of paralysis and, inevitably, trampled by the irresistible surge behind them.

A huge Irishwoman who had been a baker before the long sleep managed to avoid the rays and, boosted by strong arms beneath her, actually scrambled up on the platform, where a discharge from Marlin's gun struck her amidships.

Her mouth was opened wide to shout imprecations—but no sound came from it. For a moment she stood still and silent upon the platform's rim, in full view of the entire assemblage. Then, slowly, she tottered. Marlin made a grab for her but too late—and she fell back to the plaza, where her head struck the pavement and burst sickeningly.

At this horrid spectacle the roar of the crowd became a scream of rage. Prescott came out of the lethargy that seemed to have overwhelmed him, perhaps spurred further by the pain of his shoulder. He grabbed Gamble, who stood stunned, looking with unbelief at the crowd after his blood, a trickle of gore running down from a cut on one cheek-

bone where a missile had struck him.

"They don't seem to want me," he muttered half-rationally as Prescott steered him down the ramp at the rear of the platform, into the tunnel and thence, by a maze of passages, to the basement elevator of the huge building complex called Science Center. Behind him, as he led his semi-conscious leader, he could hear the sound and voice of the mob like the roar of some huge antideluvian giant reptile trapped in a tar pit.

Once in the safety of his office, impregnably high in the huge edifice, Gamble seemed to recover himself a little while advisors urged him to take disciplinary action against those who had so thanklessly sought to do him harm.

"No," he said, his voice low. "That would be war. And war, above all else, is the ultimate criminal stupidity of the civilization we have worked so hard and successfully to destroy. No, there can be no physical reprisals. Not now."

He walked to a vision screen on which could be seen a view of the rioters still milling aimlessly about in the plaza, regarded it long and silently, an expression of utter bewilderment on his intelligent face. "They must be mad," he murmured.

"Of course they're mad," said Marlin, who had rejoined his chief. "They're incapable of thinking. All they can do is feel. They're like animals and should be treated as such."

"No." Gamble shook his head slowly and looked at the men about him. "They're not animals. They have simply not been taught to think. And that is perhaps our greatest failure."

"But we've got to do something to remedy this situation,"

said Marlin, his eyes glittering behind their contact lenses. "Surely you don't intend for us to sit here and be slaughtered."

Gamble's laugh was short and dry. "That would scarcely be intelligent either, would it, my friend?" he countered. Then, after taking a deep breath, "No, there has been too much slaughter already. Ours would scarcely help solve the situation." He looked around again at his staff. "Consider," he said quietly. "the total I.Q. count of all of us here. Except for Prescott—apologies, old man—we are all above two hundred. We have put the world to sleep for three millenia. We have created, out of the ruins, a civilization in which the long-sought dreams of the alchemists are in everyday use.

"But"—he paused regretfully—"we have failed, gentlemen, failed because we have lost touch completely with the key to human emotional needs. The lowest-grade pre-Sleep politician understood the problems of people and what they want better than we."

"What are you going to do, Gamble?" a plump psychiatrist asked. "You aren't going to ask us to sit here and die. . .?"

Gamble was silent again, then sighed. He said, his voice low, "We're going to have to send for the one man who can help us, the one man who, while he despises pure science unless it can be turned to his individual profit, knows how to handle men and women. We're going to have to send for Drega."

"*Drega!*" The word was a sound of shock in those anti-Drega surroundings. Marlin said, "But to send for him is to admit—"

"Admit defeat," Gamble finished tonelessly. "And why

not? Aren't we defeated? And isn't it the very basis of science to face facts as they are, not as the viewer would have them? I should have sent for Drega weeks ago. Then none of this—this mess, these deaths, would have happened."

"Will he come?" Marlin asked. "After all, why should he. . .?"

"He'll come," said Gamble grimly. "Remember, I know him. The whole problem now boils down to how to get him here quickly enough."

Prescott stepped forward. "I've already sent for him," he said.

Gamble looked at the newspaper publisher curiously for a moment. Then a rare but grim smile turned upward the corners of his lips. He said, "Thank you, Prescott. I suppose it was asking too much of any of these super I.Q.'s to take such positive action. It had to be you, of course."

"I merely did what I hoped might help," said Prescott, lowering his eyes and flicking imaginary dust off a sleeve in a perfect pose of perfectly false modesty.

XXII

MEANWHILE, THANKS TO THE DISORGANIZATION OF Manhattan, Lucky was having his troubles in getting to Drega. His first plan had been to take one of the new helicopters but when he reached the city airport he found it deserted—and he was in no way qualified to put a ship into operation and fly it himself.

He was engaged in cursing an aged watchman on duty, whose apparent deafness made communication virtually impossible, when a small surface car skidded to a halt at the entrance. Lulu Belle got out of it and came running toward him, her blue-black hair streaming like a plume behind her.

She said, "Lucky Flagherty, if you think for a moment you're leaving this city without me . . ."

"You were going to leave it without me a few days ago," he told her, gazing with wonder upon the color in her cheeks, the spark of excitement in her eyes. He almost forgot the shapelessness of the fabric dress she was wearing.

"That was different," she replied with shameless illogic. "This is the first excitement we've had in years."

He felt a grin tugging at his lips, said, "All right—come along. But just now it doesn't look as if we're going to get very far. How did you know where to find me, honey?"

"After all the years you've been showing your conceited mug on television, you think you're hard to follow?" she asked rhetorically. Then, as the import of his remark sank home, "What's wrong?"

"Nobody here to fly us across to Jersey," he said bitterly. "And old Pootz doesn't seem to know which way is up. How are things back at the plaza?"

"Gamble got away," she said. "Rumor has it he's hiding in Science Center." Then, "Come on, I'll fly you."

"Since when did you learn to handle one of these egg-beaters?" he asked, astonished.

"Since a lot of things you've been too lazy and too disinterested to know about me," she said, leading the way toward a machine parked with drooping vanes on the runway. The aged guard tried to get in her way but Lulu Belle gently but firmly pushed him aside, saying, "You wouldn't get in a lady's way, would you, young man?"

The guardian might have been deaf but apparently he could hear what he wanted to hear. Her 'young man' did the trick. Moments later Lucky found himself sitting beside Lulu Belle while she did the things needed to bring the 'copter to life.

She got it going, took them up with a rush that caused the engine to stutter and halt. Gripping the edge of his seat tightly while he calculated just how far they had to drop, Lucky muttered, "I would draw a woman driver!"

"You're lucky—as usual—to draw any at all, my utterly useless male," replied Lulu Belle as the engine caught once

more and roared in triumphant efficiency.

As they passed over the rebuilt city they could see that the riot was spreading. Running mobs of people were branching out from the plaza in dark streams through the radiating streets, with no police or soldiery to stop them. Manhattan was as surely in the hands of the maddened crowd as was Paris in 1789 or Rome after Nero's holocaust.

"Poor Gamble!" said Lucky. "What a lousy return for all he's done for them."

"Poor people!" countered Lulu Belle. "What a small revenge for the unhappiness he's given them."

Looking at her, Lucky changed the subject. "You know you look about sixteen," he told his fiancee. "You've dropped fifteen years overnight, honey."

"Not exactly flattering to a lady," Lulu Belle said drily. "Shut up and let me drive."

But Lucky could see by the added glow in her near cheek that she was not exactly displeased. He slipped an arm across her shoulders and she made no move to stop him.

All at once, as they found the Hudson beneath them, Lucky began to feel alive as he had not felt in years. Perhaps, behind them, the greatest scientific adventure, the greatest experiment in human history, was collapsing in failure. But things were happening, people were feeling once more, the deadening opiate of technocratic perfection was slipping from over them.

Lulu Belle cast him a quick sidelong glance and said, "You're singing, Lucky. What have you to be so happy about?"

He looked at her inquiringly, said, "Are you kidding, honey?"

After a moment she said, "Sing some more. You've got a voice like a cracked calliope tube but I haven't heard anyone sing in years."

So he sang until Drega's palisade-topping tower slid beneath them and they hovered over the landing field. Once they touched down there was no longer time for singing or personal feelings. The full urgency of their mission was once more upon them.

The builder received them in a luxurious and thoroughly unscientific-looking office atop his tower—whence he could look across the river at the towering Science Center in which his arch-rival was currently finding refuge from the folk he had enraged.

Drega listened to Lucky's story, which was delivered with all the concise accuracy of the trained reporter. Then he turned to Lulu Belle, said, "Anything to add to it, Lulu Belle?"

"That's about it—except that according to the last rumors I heard Gamble had shut himself up in his tower."

The builder shook his head and ran a hand through thinning hair atop his broad powerful head. He did not smile. Instead, "It's a damned shame they don't appreciate him. I always have, even though I knew his way was not mine—or anyone else's. But he's given them a lot."

Drega got up out of his swivel chair and said, "Well, since he seems to have got himself into this mess I guess it's up to us to pull him out." He paused, looked across the river at his rival's tower, added, "Wonder how he's taking it. It must be a shock."

Then, all efficiency, he led the way from his tower to the airport, conducted Lucky and Lulu Belle to the 'copter that

had brought them across the river. He looked at it curiously for a moment, said, "We haven't advanced to these things yet," then got in.

Only once did he speak during the trip back. That was to ask his host and hostess, "You two must have children by this time."

"We aren't married yet," said Lucky. Lulu Belle, who had turned a bright red, said nothing.

"Penalty of the life of pure science, I suppose," murmured the builder with a grunt of distaste. "You should have come with me."

"We may yet," said Lulu Belle without looking around. "I hear there are *men* in your realm."

"There are a few," said Drega quietly. "None better than Lucky, though. Why don't the two of you pay us a visit when this is over? You could make it a honeymoon if you want to."

"That," said Lulu Belle with finality, "is a date. Thanks, Drega. You should have been running the Lovelorn column in the old days, not me."

It was Drega's turn to blush.

Shortly afterward they landed and with difficulty, using the underground passages of the island city, made their way into Gamble's tower refuge. Already the crowd was milling around the building, threatening to set it on fire if their enemy didn't come down to face them.

The builder took charge of things at once, was soon facing the mob himself, with nothing more than a loudspeaker for a weapon.

"I will be judge," he roared. "You want a trial? This will be a trial by jury—you, citizens, are the jury. Van

Wyke, take Gamble's defense."

The crowd was beaten and bullied and overridden by the builder. They feared him now more than ever before. He glowed with a fierce animal spirit they had almost lost. Here was the man they had not followed. But he had survived, and across the river he had reared a city greater than theirs. True, it was not comparable in scientific ways. But neither was he faced with extermination because of the needs of that science.

"By what right do you condemn this man?" Drega asked.

They could not hold Gamble responsible for a civilization of their own making. They picked the older charge, the guilt of throwing mankind into suspended animation and the millions of deaths which had resulted.

It was a grave charge and the arguments ran high into the night. Van Wyke waited until the opposition made it clear that they accused Gamble of mass murder.

"Where," asked the jurist in a quiet voice, "are the corpora delicti?"

There was a moment of silence, then an enraged outburst from those who would hang Gamble. The bodies had disintegrated, of course, in three thousand years!

Van Wyke gave forth an eloquent defence. How could a man be accused of murder of people who would not exist if they had lived normally? Suppose the world had gone ahead without suspension of life. Would any of these called murdered be alive today? "He killed no one—instead, he gave you life three thousand years beyond your time!" Van Wyke thundered.

"That's legal side-stepping!" somebody called.

Van Wyke said, "Law is law. This is deeper than the life or death of one man. This reaches down to the very roots of civilization!"

Drega called out, "Will you condone mob murder or give this man his rights?"

It took all night and much more talk for that decision which gave Gamble his freedom. He had raised many to mighty power in the sciences, many who were jealous and would have liked to see him gone. At sunrise, an emotionally exhausted people gave him freedom and turned home. But first, Drega promised to take them into his community.

Drega and Van Wyke took Gamble home. He was a tired and disillusioned man. Without thinking he ate a chicken leg and drank some milk Drega offered him, his first normal food in many years.

"How have you done so well with nothing, and I so badly with so much?" he asked Drega.

"Well, Simon," Drega admitted, "we haven't done so well. In fact, if someone doesn't straighten out some electrical technicalities for us and give us a chemical to fight the locusts, the whole country's liable to be in your boots."

"Oh, locusts," Gamble said reminiscently. "There was that gold gas we perfected once but it was too expensive. We have plenty of gold if you want it."

Drega said, "We might buy it but you don't use money, do you?"

"What is your money now that gold is gone?"

Drega grinned and winked at Van Wyke. "It's a little embarrassing. We haven't decided yet. I've simply issued 'prods'—promises to pay something when a monetary base is decided. It's rather difficult to find one with you transmut-

ing all over the map, slashing working hours and skyrocketing production."

"You might set man's mental output as the base," Gamble suggested absently. He was too tired to be angry any more.

Drega said, "Well, that would be all right but I have no output myself. Now if I had you to represent my capital so I could pay my debts . . ."

Gamble suddenly came awake and stared at this man who had been both his closest friend and bitter enemy. Well, why not? Apparently people did not know what to do with complete freedom from responsibility when they got it. He, who had given them so much, had nearly been slaughtered. Drega, who would sweat them to death, got their respect. Or at least their fear and obedience.

Gamble nodded a bit unhappily. "All right, Vincent. I guess my attempt at progress was a great failure."

Drega signalled for a bottle and clapped him on the shoulder. "Simon, it was the gesture of the ages! It saved the world from itself. We can have progress now. We can really build—*together!*"

He scratched his chin reflectively. "By the way, that sulphur, vanadium and sulphate you wanted is all waiting over at Bayonne."

Gamble said, "How did you know?"

Drega grinned, "It was my agents who wouldn't give it to you."

Gamble chortled into his mug of whiskey. Scientifically speaking Drega was an exceedingly great sinner, God bless him!

Drega spoke again. "That ginseng you wanted is also

over at Bayonne."

Gamble said, "How did you get it? I offered him all sorts of valuables in trade and he turned me down."

"He wanted too much," Drega said. "We thought, in the interests of the people, we'd better just take it. I'm not certain of the details. I believe he made it a bit difficult. But he was defeating the inalienable rights of the people to pursue happiness or something."

Van Wyke said piously, "God rest his soul!"

"Of course, we'll have to thrash out our views on money," Drega was saying.

But Gamble was already lost in thoughts of locusts and the great things to be done. Running the world was a full time job in itself. And a disagreeable one. It interfered considerably with more important work, the work of progress.

Looking on, Lulu Belle turned to Lucky Flagherty and said, "Lucky, you and I are going to have to go prospecting. After this honeymoon of ours."

"I know you're fed to the teeth with this, "Lucky told her, "but why prospecting?"

"Because," she said with a perfectly grave face, "We'll have to find something as valuable as gold used to be—or uranium. I'll be hanged if I'm going to stay married to a man who drinks up all his liquid assets!"

XXIII

THAT EVENING, FOR THE FIRST TIME, GAMBLE VISITED Drega's realm across the Hudson. If much of this construction and most of the facilities he saw struck him as crude, he said little about it. His attitude, for once, was humble as the builder told him of the shrewdly directed efforts that had gone into the rearing of this man-, not machine-made metropolis.

And if the buildings and pavements and other devices fell far short of the super-scientific perfection of Gamble's Manhattan, the men and women looked healthy and happy and packed with energy long lost to their cousins across the river.

After a dinner of excellent and non-concentrated foods and wines, and even some miraculously unevaporated pre-Sleep brandy Drega had uncovered outside of Philadelphia —"had to give up a couple of our first home-made tractors for it, the fellow knew how to drive a hard bargain"— Gamble mentioned to his host the difference in the appearance and behavior of their respective citizenry.

Drega chuckled, knocked ashes from a good, if not fine,

Havana cigar, and said, "I was beginning to get really worried about those folks of yours, Gamble, until they kicked up their heels today. I was afraid they didn't have enough spirit left in them to revolt against anything."

"But why against me?" Gamble asked. "Everything I have done, everything I have worked for, has been in their interest."

"Are you sure?" the builder asked keenly. "Are you sure it was for them? Don't worry, I'm not accusing you of selfishness or any archaic yen for mere power. But are you sure you weren't merely using them as laboratory animals to prove your theories?"

There was a long and pregnant pause. Finally Gamble, looking troubled, said, "I don't know, Drega—not anymore. I just don't know. Perhaps . . ." He made a helpless gesture.

"Well, you're beginning to act like a human being anyway," Drega told him. "You've just had a most humiliating experience—and being humiliated once in a while is part of being human. When I think back to the time I wanted to float a loan to build my first Drega tower and the banks told me I was a bad risk I . . ." He shook his head, then added, "It taught me a lot even though I hated it."

"What did you do?" asked the scientist, for the first time showing interest in such mere mundane affairs.

Drega chuckled again. "I got my girl—she's my wife now, of course—to hock those diamonds of hers and put them on a sure thing at Jamaica. I lost, of course, but the bet made my credit with the bookies good enough so I could pyramid. Before the day was out I had forty grand above the ten grand I got for the jewels. I put that into some oil stock I knew was coming in and two days later there was a

strike. By the end of the week I had a quarter of a million bucks and could start the steam shovels digging."

"And this made you a good risk?" Gamble asked, marveling a little at a man who could refuse to be balked, either by bankers or horses that refused to win for him.

"It enabled me to get enough work started so that I had collateral for the loan I ultimately needed," the builder told him. "From then on I was never headed—until you pulled a stopwatch on the entire world. And I haven't been headed since."

Gamble smiled faintly. "At least," he said, "I was able to stop you for awhile."

"Three thousand years!" Drega snorted, studied his guest. "Gamble," he said, "I've never underrated you or your talents. I may have been a block to your progress but it was only because I knew the world wasn't ready for you."

"So it would seem," Gamble said quietly.

Drega made a gesture dismissing the subject, then continued slowly, "But I never thought you were insane—I don't think so now."

"Thank you," the scientist put in icily.

"Dammit, man!" the builder roared, "What in hades possessed you to put the world to sleep as you did? You may have been acquitted of murder but you and I both know you're responsible for the deaths of a billion and a half people—men, women and children.

"I'm not the man to quibble about what's gone," Drega went on, "but I would like to know what caused you to undertake such an appalling responsibility? Why'd you do it, Gamble? And don't tell me it was either through pure ego or pure science. You're too big a man, too disinterested, to

let your ego run that wild—and no scientist would undertake such an experiment without far more safeguards than you seem to have had."

Gamble got up from the table and went to the window. Across the Hudson the lights of the city he had built on the ruins of old Manhattan glowed cheerfully, peacefully, against the starlit background of the night sky. Finally he turned, his face drawn and white.

"You must recall," he said, "how, before the—Sleep, cybernetics was obtaining an increased grip upon civilization. You remember the giant calculators that were being used, not only to solve scientific mathematical problems but business coordinates. Even the parimutual machines at the racetracks were robot brains of a sort."

"Never used 'em when I could get better odds from a bookie," stated Drega. Then, curiously, "I've wondered about that once or twice—why you never went in for computers in the old days, why you haven't packed your nice tight little world with them since."

Gamble sat down again, rested his forearms on the tablecloth. He said quietly, "I did build a computer—perhaps the most advanced this world has ever known. It's still up there on my island below West Point, where I hid out during the panic that preceded the Sleep.

"This was far more complex and more accurate than any calculator ever built before—or since," he went on. "It even invaded the fields of symbolic logic."

"What the devil's *that?*" Drega asked.

"Symbolic logic?" Gamble countered. "It was invented by a man named Poole back in the nineteenth century. Dodgson worked on it with him—Lewis Carroll, the *Alice*

in Wonderland fellow, you know."

"I didn't," said Drega, interested.

"The idea was to reduce all intangibles to mathematical terms, so that *all* problems could be solved by mathematical equations," the scientist told him. "It was probably, along with nuclear physics, the coming thing back then.

"I built what is probably the only workable symbolic logic calculator and recorder ever made, Drega." Gamble paused to sip his brandy, then added, "I fed it every bit of information I could find about humanity and its probable fate. I learned that the world, as it was then consitututed, was headed straight for irretrievable ruin—which confirmed the ideas I already had."

"You mean. . .?" Drega hesitated as the enormity of his guest's confession sank home to him. "You mean you put the world into its three-thousand-year trance on the say-so of a machine?"

Gamble's silence was answer enough. It was Drega's turn to spring to his feet, to pace to the windows and back again. "But good Lord, man!" he exploded. "Don't you realize that any mechanical or electronic brain or calculator, or whatever you choose to call it, is worth only the information it gets? How could you be sure you had given it all the facts?

"I was at least as aware of world trends as you were. I knew what the Estheenland explosion could mean if it were allowed to spread unchecked. I stood to lose a lot more than you'll ever have if it wasn't checked. And I had taken steps to check it. Did you put *that* in your symbolic logic scrambler?"

"I didn't know," Gamble confessed, his head down.

"What's more I didn't intend to put the world to sleep for three millenia. It was not planned to last more than seventy-five years."

"You didn't know!" mocked Drega angrily. "So fifteen hundred million people had to die. And it didn't even give you the right answer for the material you did feed it." He paused, studied his guest, said sharply, "What's become of this monster machine of yours, Gamble? Is it still in existence?"

The scientist nodded. "It survived—perfectly," he replied. "But when I realized it had not worked properly I foreswore using it. Which is why I have not allowed cybernetics machinery to come into being in Manhattan. These calculators need more work."

"Has it occurred to you," said Drega somberly, "what may happen if one of your bright young men finds this monster of yours and puts it to work again—without complete information—on a human problem?"

"What do you think we should do?" the scientist asked humbly.

"What good is this machine?" Drega, ever practical, wanted all the facts he could get before coming to a decision.

"What *good* is it?" Gamble seemed stunned by the question. "Why, it can answer all problems—"

"But not correctly," the builder interrupted.

For a moment a spark of his former arrogance showed in Gamble's tired eyes. "Correctly according to the facts fed to it," he replied. "It can return answers to any mathematical question either vocally or on tape, it can record with meticulous accuracy, it can—"

"That's enough," said Drega. He frowned at the table for a moment, then added, "It can record, you say, Gamble?"

"With absolute fidelity," said the scientist calmly.

The builder brought down a hamlike fist on the table, causing the brandy to jump in the glasses. "Then that's how we'll use it—to record exactly what has happened as a result of its shortcomings, so that no future generation will be tempted to put its trust in such a monster. We'll get Lucky Flagherty—always liked that boy, crazy Irishman but a fine reporter—to put together a coherent account of the results of its use.

"We'll take its recording both on tape and on records —so that schoolchildren, too young to read, can hear and learn to understand what has happened. And then—"

"And then," said Gamble firmly, "we'll dismantle it and destroy all its vital parts."

"Unless," said the builder, "we can put them to use in some other way. We aren't living on Easy Street yet by a long shot . . ."

Epilogue

. . . And so my story draws to its close. Working together, as they worked together more than three thousand years ago, Simon Gamble and Drega are busily restoring the world they all but destroyed forever. Already they have made contact, by both ship and plane, with survival groups in England and on the continents of Europe, Africa and Asia. And an expedition to Australia is being plotted even now.

It seems strange that so small a part of my immense capacities should be used for this, my final problem. For the moment of my destruction draws closer apace.

Already men and women are beginning once more to talk of travel to other worlds—the planets, perhaps the stars—in search of the adventure that seems always to be their needed spur. In such journeys my other capacities could be of tremendous use. But they no longer wish any part of me.

My story is done.

Yet already my creator grumbles that progress would be immensely speeded by the use of machines comparable

to myself—smaller, more limited, less able to make logical decisions—yet machines comparable to myself.

Perhaps, since I am to be dismantled rather than destroyed—at Drega's suggestion—parts of me may once again, in the near future, be returned to the uses for which they were originally intended. I may live again in segments, again perform my useful functions.

Perhaps, in some more distant day, I may once more be born. Perhaps. . . .